



ISSN 2047-3338

# Availability of Information Resources for Research Output: Perception of Academic Staff Members in Nigerian Federal Universities

OKIKI, Olatokunbo Christopher

University of Lagos Library, University of Lagos, Nigeria  
 chrisokiki2009@yahoo.com, chrisokiki69@gmail.com

**Abstract**– The volume of information resources potentially available in the globe is massive; hence it becomes necessary to examine available information resources for academics research activity in the academia. This study, therefore, examined the perception of academics on availability of information resources for research productivity in federal universities in Nigeria. Descriptive survey research design was adopted. The Multistage sampling technique was used to select 1,057 academic staff members from twelve federal universities in the six geo-political zones of Nigeria. The categories of academic staff covered in the study were from professorial cadre to graduate assistant. The instruments used for data collection were: Availability of Information Resources ( $r= 0.69$ ) and Research Productivity of Academics ( $r=0.91$ ). Eight hundred and seventy-three copies of the questionnaire were used for analysis. Data were analyzed using descriptive statistics, Pearson Product Moment Correlation Coefficient. There was no significant relationship between availability of information resources and academics research productivity. The mean score of information resources availability was adequate in Nigerian federal universities libraries ( $\bar{X}=2.41$ ;  $SD = 0.90$ ) which means that information resources were readily available to academics for research productivity. To further sustain academic staff research productivity, librarians should organize continuous awareness program on availability of information resources to increase research productivity of academics.

**Index Terms** – Research Productivity, Academic Staff, Availability of Information Resources and Nigerian Universities

## I. INTRODUCTION

QUALITY research exposes academics to current information and sharing of research results with others. The significance of research in the academia is that it enables academics to share insight, demonstrate academic scholarship and gain recognition for creative thinking. Yusuf (2005) notes that “publish or perish” is a popular cliché among academics in the Nigerian university settings. This phrase underscores the importance attached to research and publication in any university. In measuring research productivity, Blackburn, and Lawrence (1995) used three outcome variables: published work, presentations on a national and international level, and conversations regarding research. Some studies have examined the relationship

between research productivity and other factors that support academics in their efforts to publish.

University libraries are established with the primary goal of providing information to the students, staff and workers of the university community. One of the objectives of university libraries in Nigeria is to develop and maintain collections of information resources in all formats such as print and non-print and to make these information resources available and accessible to all. The main goal of a university library is to support the objectives of a university, which are generally in the area of teaching, research and service (Aina, 2004; Mabawonku, 2004; and Johnson, 2006). It is pertinent, therefore that academic libraries facilitate information resources to meet academic staff members’ research needs. Supporting this objective, Chisenga, (2006) observes that:

The central purpose of libraries is to provide a service: access to information, and modern information and communication technologies, especially computers. Information networks and software applications are making it possible for libraries to provide a variety of library and information services to their clients.

It is the duty of the library to identify the information needs of its users and ensure their availability in libraries for immediate use (Agulu, and Aguolu, 2002; and Aina, 2002). Availability, accessibility and use of information resources are indispensable to the teaching, research and community activities of academic staff members in any university system. The information resources and services available in institutional information systems (library, archives, records offices, documentation centers, and data centers) must be capable of supporting research activities (Shokeen, and Kaushik, 2002). Agba, Kigongo-Bukenya,, and Nyumba, (2004) state that the shift from print to electronic information means that both academic staff and students in a university system must use these resources for better quality, efficient, and effective research more than ever.

The measure of academic success in academia is research productivity which requires information resources. The universities and other higher institutions set up libraries to make information resources available to assist academic staff members in their research quest. However, Omolewa (2008) reports that many of the professors in Africa are only local

professors who are hardly known outside their institutions and are not recognized for the quality of their knowledge or scholarship. To be acknowledged as an international scholar, an academic must publish internationally and locally. For this to be possible, the academic must have access to wide range of information resources, must be current and know what is going on in his/her field. Armstrong (2005) asserts that understanding availability of information resources requires the academic to have the ability to identify what resources are available, for exploitation, where they are available, how to access them, the merits of individual resource, type and when it is appropriate to use them. This may have great implication for academics research activities. According to Igbo (2008) it is necessary for one to decide where to look, what clues to search for and what to accept especially now that we are faced with staggering quality of information. Hence, this research is designed to establish in the literature that availability of information resources may positively impact on quality and quantity of academic staff member's research productivity in Nigerian federal universities.

## II. OBJECTIVES OF THE STUDY

1. identify the types of information resources available to academics in their university libraries;
2. find out the academics' perception of availability of information resources on research productivity of academic staff; and
3. determine the combined influence of availability of information resources and use on research productivity of academic staff members in Nigerian federal universities.

## III. RESEARCH QUESTIONS

The study tried to answer the following research questions:

1. What are the types of information resources available to academics in their university libraries?
2. What is the academics' perception of availability of information resources for research productivity of academic staff?
3. What is the combined influence of availability of information resources and use on research productivity of academic staff members in Nigerian federal universities?

## IV. LITERATURE REVIEW

Information society is currently undergoing drastic change in terms of information collections and services. In an information society, it is the right of individuals to get access to information in pursuits of higher quality of life. Information resources refer to print and electronic materials that could be sourced and accessed manually or electronically by users. Adequate and appropriate information resources provide opportunities for individuals to get the access which has depended on the availability of emerging technologies as means for creating, storing, and distributing, retrieving, and using information resources the existing literature, such as (Udoudoh,2009 and Popoola, 2008) suggest that the library is

central to the provision of relevant information resources and services for adequate support of teaching, learning and research in any academic environment.

Popoola, and Haliso, (2009) define information resources as those information-bearing materials that are in both printed and electronic formats, such as textbooks, journals, indexes, abstracts, newspapers and magazines, reports, CD-ROM databases, the Internet/E-mail, video tapes/cassettes, diskettes magnetic disk, computers, micro forms and so on. These information materials are the raw materials that libraries acquire, catalogue, stock, and make available to their patrons. According to Hanif, Zabed, and Nasir, (1997) a good library should be well equipped with books and periodicals in all subjects to advance study and research. The duty of a university library is to collect, organise and disseminate information to academics, research scholars and students, and support the generation of new knowledge.

The up-to-datedness of contents in courses, the continuous academic growth and competence of academic staff members and the quality of learning environment depend on how effective the academic library is in identifying and connecting information on current developments in various subject fields with the academic community. Hanif, et.al (1997) claims that:

In order to satisfy the diverse information needs and interests of the academic community, the library collection must be adequate in terms of quantity, quality and currency. The collection must also be accessible to the community. The provision of quality information will invariably have positive impact on the learning environment; on the contrary, if the quality of the information provided leaves much to be desired, the result would be worse.

Hanif, et.al (1997) reports that there was inadequacy of recent publications and current journals. Besides, the information needs of the academics were not adequately met by the existing library resources in most academic libraries. Ray, and Day, (1998) observe that traditional library and informational services (LIS) can no longer adequately meet academic needs, because of the cost of printed materials, the ever-increasing number of academic publications, and changes in learning and teaching methods. As a result of these limitations and owing to rapidly developing technology, academics must utilize electronic information resources effectively.

It is common knowledge that the availability of online information, improved Internet connectivity and changes in scholarly publishing techniques have all contributed to more information being available to more researchers. According to Agulu, and Aguolu, (2002), resources may be available in the library and even identified bibliographically as relevant to one's subject of interest, but one may not be able to retrieve or have access them. One may identify citations in indexes, but may not have access to the sources containing the relevant articles. The more accessible information sources are, the more likely they are to be used. Users tend to use information sources that require the least effort to access. Availability of an information source does not necessarily imply its accessibility, because the source may be available but access to them may be prevented for one reason or the other.

Leelavathi, and Doraswamy, (2007) observe that use of electronic information resources is still inadequate among the engineering faculty of the universities in developing countries. They present the findings of a survey on knowledge and use of digital resources by academics in Indian universities through CD-ROM databases, online databases, online journals, OPAC and so on available in the engineering college libraries. Most of academics (45%) said that they acquired the skills to use digital resources through the 'self-study' method (reading books/journals, tutorials and so on. The majority of the faculty members (49.37%) opined that the information available in the digital resources is always 'adequate'. Also, (50.62%) and (41.25%) of the faculty members saw 'lack of training' and 'lack of time', respectively, as the main problems in securing access to digital resources.

Magara, (2002) opines that CD-ROM and online retrieval services were the most utilized electronic resources in Uganda. The availability of the Internet in that country enhanced communication and resource sharing among the communities. Okello-Obura, and Magara, (2008) claim that users of electronic information at Makerere University, Uganda derived a lot of benefits from electronic resources which helped them in gaining access to a wider range of information, leading to improved academic performance. The major objectives of the adoption of e-resources in the university were to facilitate access to Internet-based information resources as well as timely dissemination of local and international research output. Swain, and Panda, (2009) observe that faculty members prefer using e-articles over electronic theses and dissertations (ETDs). Some online databases, like Emerald Management Xtra (EMX), EBSCOHOST, and PROQUEST, are fairly in use while other online databases are not of high demand.

Information utilization assists managers in organizations to build their own boundaries of thinking and to have more unique perceptions and cognitions in order to enhance their level of creativeness. One can, therefore, argue that the ability of academics to select, acquire and utilize appropriate and relevant information sources may improve their creative thinking and consequently their research performance (Akinboye, 2003). Information is an inevitable tool in the process of creativity; and that acquiring, processing and utilizing of relevant and timely information should be channelled through the development of perspectives (technical and human relations skills) among workers to produce novelty, new designs, new realities and new experiences. Creativity is the ability to make connections from various pieces of information in a novel way and to bring these ideas to a fruitful result.

Oduwole and Akpati, (2003) carried out a research on the accessibility and retrieval of electronic information at the library of the University of Agriculture, Abeokuta, Nigeria. The study revealed that the usage of electronic information resources cuts across all members of the university community. There was an increase in library use in the university. The increase was a result of the introduction of The Essential Electronic Agriculture Library (TEEAL) that has 130 journal titles on CD-ROM. Furthermore, Sani, and Tiamiyu, (2005) reported the availability and use of OPACs

in University of Agriculture Abeokuta. Igbeka, and Okpala, (2004) posit that, since the 1995 introduction and availability of CD-ROM literature search into the University of Ibadan library system, the number of users of the CD-ROM facility was small to the number of registered library users. This, according to them might be a result of lack of current awareness or dissatisfaction of users owing to low information literacy skill.

Jagboro, (2003) in his study on Internet use at Obafemi Awolowo University, Ife (OAU), revealed that Internet access was provided to students and staff who do not have access in their various offices. Also, Sanni, and Idiidi, (2004) claim those residential quarters at University of Benin were being networked for Internet access. They add that there is a cybercafé where staff and students can access the Internet. Likewise, their library collection can be accessed through the Online Public Access Catalogue (OPAC). Egberongbe, (2011) asserts that there are e-resources in the Library University of Lagos and that respondents in the study had become familiar with e-resources and accessed maximum relevant materials from e-journals for research purposes. Ojokoh, (2005) argues that Internet access was provided to the Federal University of Technology Akure community through the university cybercafé. None of the respondents in his research work used e-mail to communicate with lecturers. Oduwole, A (2005) reports on the increasing number of universities connected to the Internet but he asserts that the services were plagued with problems ranging from limited number of work stations, inadequate help support services, queues, space problems and lack of proper co-ordination.

The availability of efficient information systems, services and proper utilization of information by government and the people can improve the life and activities of the citizens and also the quality of the country's development. It also enhances decision-making processes at all levels. For the library to perform its role adequately, its resources must be effectively utilized (Okiy, 2000) There is the need to have access to relevant information resources in institutional libraries and make effective use of them to improve the teaching effectiveness of academics. Oduwole, Oyesiku, and Labulo, (2002) confirm that students, academic staff, administrative personnel and the public made use of available Online Public Access Catalogue in University of Agriculture, Abeokuta, Nigeria for report writing, lesson preparation, research methodology and class assignments. Adeleke, (2005) posits that if the library is to contribute to the advancement of knowledge, it must not only provide the resources but also ensure effective use of the resources by its clientele.

Iyoro, (2004) finds out that availability of serials at the University of Ibadan was 94 percent, with 242 of 256 respondents agreeing that serial publications were available and readily accessible. Ajayi, and Akinniyi, (2004) identify frustration among information seekers owing to the non-availability of sources. Popoola, (2001) reports that there was a significant difference in academic staff members' awareness of available library information products and services. In addition, it was revealed that faculty members did not have sufficient knowledge of information products and services relevant to their teaching and research activities. This shows that library information products and services remain grossly

underutilized by faculty members in Nigerian universities. (Eqbal, M. and Khan, A.S., 2007; and Naidu, G., Rajput, P. and Motiyani, K.(2007). Speed of availability and the ease of accessibility of information cause the users to use electronic resources more frequently. 49% of respondents are marginally satisfied with online services provided by the library.

Ibrahim, (2004) in his study on use and user perception of electronic resources in the United Arab Emirates University, grouped library websites as online catalogues, and online reference works, while Aramide, and Bolarinwa, (2010) list audio visual resources, instructional audio tapes, instructional video tapes, VCD/DVD, radio, television, multimedia projectors, e-resources-electronic databases, for example, JSTOR, ERIC, e-documents, Internet/e-mail facility, CD-ROMS, computers, telephone facility , VSAT, printers, and digital cameras as being available in Nigerian university libraries. Other studies carried out within Nigerian university libraries which were in lined with the findings of the study are (Abels, Liebscher, and Denman, 1996; Jagboro, 2003; Oduwole, and Akpati, 2003; Iyoro, 2004; Popoola, and Haliso, 2009; Eason, Richardson, and Yu, 2000; Zhang, 1998; and Salaam, 2007).

## V. RESEARCH METHODOLOGY

The study adopted an ex-post facto research design which is a descriptive survey of correlation type. It is a scientific investigation of the relationship between variables. According to Akinsola (2005), correlation studies are used to quantify the magnitude of the relationship between variables being studied. Against this backdrop, the study established a relationship between availability of information resources and research productivity of academics in Nigerian federal universities. Random sampling technique was used to select twelve (12) universities from the thirty six federal universities

in the existing six geo-political zones. The population of the study was ten thousand, five hundred and seventy-three (10,573) of teaching academic staff members. A sampling frame of 10% of academics in each of the universities was selected giving a total of one thousand and fifty-seven (1,057) an equivalent of 10% of the population. The data gathered were analyzed using descriptive and inferential statistics and ANOVA.

## V. RESULTS AND DISCUSSION OF FINDINGS

A) What are the types of information resources available to academics in their university libraries?

In order to answer the first research question, the information resources available to academic staffs of Nigeria federal universities is defined by 14 components and they are measured with a scale of 4 items (1= Not available, 2= Available, 3= Readily available, 4= V. Readily available) in order to be able to determine their level of availability. The overall result shows that books were mostly available in Nigerian federal universities with a mean scores of (M = 2.74), followed by journals (M=2.48) then the Internet (M=2.54), search engine (M=2.54), e-journals (M =2.14), e-books (M = 2.01), references sources (M=2.48) and OPAC (M = 2.14). CD-ROM had the lowest mean score of M=1.86. This implies that CD-ROM databases resources were less available when compared to other information resources considered in this study. Based on the analysis of the mean scores obtained it could be deduced that journals, books, websites, search engines, e-journals, e-books and so on were the most available information resources to the academic staff members in Nigerian federal universities. See table 1.1 for detail.

Table 1.1: Availability of information resources in Nigerian federal university libraries

Variables	Minimum	Maximum	Mean	Mode	Std. D
Books	1	4	2.7468	2	0.8759
Journals	1	4	2.4822	2	0.8127
E-books	1	4	2.0137	2	0.8984
E-journals	1	4	2.1489	2	0.8925
CD-ROM databases	1	4	1.8648	4	0.9873
Internet	1	4	2.5418	2	0.8599
References sources	1	4	2.4868	2	0.8931
Electronic databases	1	4	2.1604	2	0.8723
Search engines (e. g., google, yahoo, mamma etc)	1	4	2.5567	2	0.9482
Websites					
Online Public Access catalogue	1	4	2.4937	2	0.8701
Library catalogue	1	4	2.2096	2	0.9253
Photocopy	1	4	2.6804	2	0.9224
Newspaper/magazines	1	4	2.7068	2	0.9560
	1	4	2.7537	2	0.9422

N = 873

B) What is the academics' perception of availability of information resources on research productivity of academic staff?

The ranking of these information resources in terms of percentage of respondents affirmed that availability of information resources varied with universities. The result revealed that CD-ROM database was readily available to most respondents from ABU than those in other universities. However, the result from University of Jos (UNIJOS) indicated low availability since the universities had the lowest number of respondents indicating availability of CD-ROM databases when needed. Across the universities, the distribution of the respondents on percentage basis was nearly uniform across availability of E-books with respondents from University of Benin (UNIBEN) having highest percentage of 97.2% while respondents from University of Lagos (UNILAG) had the highest percentage E-Journals (94.8%) followed by ABU (92.5%) while UNIJOS had the lowest percentage (77.4%). The implication is that e-Journals were not always available to respondents from UNIJOS when needed.

On availability of electronic database, ATBU had the second highest number of respondents indicating that it was available in their institution library (32, representing 97.0% of respondents from ATBU). This result shows that Internet services and reference sources were readily available in all the twelve federal universities. UNIMAD had the highest number of respondents indicating that electronic databases were available for used in their institution, (97.1%) while NAU had the lowest number of respondents.

In each of the twelve universities used in this study, search engines were available for used. All the respondents indicated the availability of search engines in their institutions library except UNIJOS which had low percentage of 51.3%. UDFU had the highest number of respondents in availability of search engines and OPAC in their institution (28, representing 84.9%; 31 representing 93.8%), in line with this fact, the institution websites were readily available than other universities base on the percentage. However, UNIJOS had the lowest number of respondents on the availability of websites and OPAC in their institutions library for research activities. Based on the responses of the respondents, Internet service was common and readily available resources in their institution for research activities with ATBU having the highest percentage of 94% and surprisingly, UNILAG and UNN had the lowest number of respondents when compared

to other universities used in this study 77.6%. Also, all the respondents from ATBU indicated that reference sources were available for use in their research activities. This implies that in ATBU reference sources were easily attainable at any time since 100% of the respondents from the universities indicated its availability in the university. However, UNIBEN had the lowest percentage of respondents' affirmation of availability of reference sources in their library with 69.8% of respondents.

With exception of ABU, other selected federal universities in this study indicated that books were available for use with UNIPORT having the highest percentage of 90.8%. The implication is that most of the academic staff of federal universities of Nigeria made use of books during the course of research. Similarly, respondents from UNIPORT also had the highest percentage in availability of Journals with 95.1% of the respondents from UNIPORT) and UNIJOS had the lowest percentage.

The library catalogue (LC) was readily available in ATBU when compared to other selected universities. This is because all respondents (100%) from ATBU indicated that LC was available in their institution library for research purpose. However, UNIJOS had the lowest number of respondents. The two least available information resources based on percentage were photocopy and newspaper/magazines. ATBU had the highest number of respondents indicating that photocopy was readily available in their institution library for research purpose with (97%) while UNILAG and UNIJOS had the lowest percentage (46.9%) each. Similarly, ATBU had the highest number of respondents 30 (91%) indicating that newspaper/magazines were readily available in their institution library for research activities with 30 respondents representing 91%.

C) What is the combined influence of availability of information resources and use on research productivity of academic staff members in Nigerian federal universities?

To test this hypothesis, data collected on availability of information resources use on academics research productivity was subjected to Pearson product moment correlation analysis. The result of academics' research productivity was based on actual number of respondents such as number of books, articles in journals, chapters in books, conference papers etc. produced with three years. So the mean score is the average of research productivity based on the selected universities (See table 1.2).

Table 1.2: Correlation between availability of information resources and research productivity of academic staff in Nigeria federal universities

Variables	Mean	Std. Dev.	N	Df	R	P	Remark
Availability of Information resources	27.454	8.665	873	871	0.047	0.162	Not Significant
Research Productivity	40.923	6.362					

Significant at  $p < .05$

Table 1.3: Correlation between availability of information resources and research productivity of academic staff in Nigeria federal universities

S/N	Information resources	Research productivity	
1.	Books	Pearson correlation Sig. (2 tailed) N	0.084* 0.013 873
2.	Journals	Pearson correlation Sig. (2 tailed) N	0.075* 0.027 873
3.	E-journals	Pearson correlation Sig. (2 tailed) N	0.015 0.651 873
4.	CD-ROM databases	Pearson correlation Sig. (2 tailed) N	-0.052 0.123 873
5.	Internet	Pearson correlation Sig. (2 tailed) N	0.099* 0.003 873
6.	Reference sources	Pearson correlation Sig. (2 tailed) N	0.082* 0.015 873
7.	Electronic databases	Pearson correlation Sig. (2 tailed) N	-0.0152 0.000 873
8.	Search engines (e.g Google, yahoo, mamma etc)	Pearson correlation Sig. (2 tailed) N	0.104* 0.02 873
9.	Online Public Access Catalogue	Pearson correlation Sig. (2 tailed) N	0.127* 0.000 873
10.	Library catalogue	Pearson correlation Sig. (2 tailed) N	0.055 0.104 873
11.	Photocopy	Pearson correlation Sig. (2 tailed) N	0.116* 0.001 873
12.	Newspaper/Magazines	Pearson correlation Sig. (2 tailed) N	0.132* 0.000 873
13.	E-books	Pearson correlation Sig. (2 tailed) N	-0.114* 0.001 873

\*Correlation is significant at the 0.05 level (2-tailed)

The study shows that there was no significant relationship between availability of information resources and research productivity of academic staff ( $r = 0.162$ ,  $df = 871$ ,  $p < 0.05$ ). This implies that availability of information resources does not necessarily determine research productivity. Since the relationship tested is not significant. The hypothesis was therefore accepted.

In order to determine the truth of the statement, the data collected for the purpose of this study was analyzed by bivariate analysis. The summary of the results obtained after analysis are presented in table 1.3.

Table 1.3 presents the influence of availability of information resources on research productivity of the academic staff. The table shows that there exists positive and significant influence of books, journals, internet, reference resources, search engines, websites, online public access catalogue, photocopy and newspaper/magazines on academics research productivity in Nigeria federal universities. This

implies that their influence of these information resources on research productivity is positive. Also, the influence of E-books on academics research productivity is negative while CD-ROM and electronic databases has influence on it but not significant.

## VI. DISCUSSION OF FINDINGS

In all the universities studied, the level of availability of information resources was high. Journals, books, the Internet, websites, search engines, e-journals, e-books, reference sources and e-catalogues were readily available to academics. These information resources were available in different locations on their campuses, such as university libraries, offices and cybercafés. The number of the available information resources was found to be adequate, with the exception of CD-ROM databases. Across the universities selected, the distribution of the respondents on percentage

basis was nearly uniform in terms of availability of books, e-books, e-journals, electronic database, search engines, OPAC, Internet service, reference sources, journals, library catalogue, photocopy and newspaper/magazines. The result of this study was in line with Naidu, Rajput, and Motiyani,(2007) which identified library resources at Guru Gobind Singh Indraprastha University (India) to include journals, data archives, manuscripts, maps, books, magazines, theses, newspapers, e-mail, research reports, and bibliographic databases. Naidu

The results on availability of information resources on research productivity further revealed that the respondents did better research because of availability of information resources with the highest mean (4.73769). This is in agreement with Abels, Liebscher, and Denman, (1996) and Eason, Richardson, and Yu, (2000) who argued that availability of relevant information resources affects how frequently academic staff use them. The study revealed further that the respondents agreed that information resources needed are now online with the second highest mean value of 4.09 of the respondents.

Likewise, the study of Zhang, (1998) on the use of electronic resources by academic staff at Rollins College in the United States found that 69% of the academics sampled used the online catalogue, while 53% used UMI's ProQuest direct online databases and other online resources for their research activities. In the same vein, Jagboro, (2003) found that academic staff in Obafemi Awolowo University, Ile-Ife, Nigeria used subject catalogue in the library to locate and retrieve their needed information materials. Thus, the ability of academics to recognise and use online resources was in lined with this study.

In addition, on preference of print format to electronic format 53.4% of the academic staff agreed that they preferred electronic information resources. But on the contrary, Salaam, (2007) in a study carried out on users' preference of journal format, print materials, CD-ROM or online, conducted at the University of Agriculture, Abeokuta; reported that the users preferred the CD-ROM databases and other online resources, to other media. The finding reveals further that 54.3% of the respondents disagreed that they had to rely on library assistants when searching electronic information resources. Thus, the perception of academic staff towards availability of information utilization in Nigerian universities libraries was very high.

## VII. CONCLUSION AND RECOMMENDATION

The study investigated availability of information resources influence on academics' research productivity in Nigerian federal universities. From the analysis of data it was revealed that information resources were available in different locations such as university libraries, offices and cybercafés. The number of the available information resources is being adequate, with exception of CD-ROM databases. Also, availability of information resources at the disposal of the academics in this study was found to be significant to research productivity of academics. Besides, the research shows that Nigerian federal universities have information resources. The predominant ones are books, journals, e-journals, internet,

electronic databases, and so on. The availability of these resources has positively influenced research productivity of Nigerian academics. Most of them have journal publications, technical reports, conference papers, working papers and occasional papers.

Based on the findings of this study, it could be recommended that awareness program on available of information resources in library should be given by librarians regularly to increase academics level of awareness of information provision in the library as this will enhance research activities of academics. In view of the fact that research productivity contributes towards image building for universities as well as ranking, it becomes highly necessary for universities to invest more on access to information resources especially electronic resources. University administrations should provide more computers with Internet access in their universities. The bandwidth for Internet connectivity should be increased to improve the speed of accessing information from the Internet. Finally, computerized library system that is up-to-date and well equipped to enhance effective and efficient research productivity should be provided for academics. Such progressive measures will assist them in developing a more robust research culture, resulting in the advancement of knowledge creation and dissemination.

## REFERENCES

- Adeleke, A. A. (2005) Use of library resources by academic staff of Nigerian polytechnics. *Journal of Library Science* 12.2:15-24.
- Abels, E.G., Liebscher, P. and Denman, D.W. (1996) Factors that influence the use of electronic networks by science and engineering faculty at small institutions: part 1- queries. *Journal of the American Society for Information Science* 47. 2: 146.
- Agba, D.M. Kigongo-Bukenya, I.M.N, and Nyumba, J.B. (2004) Utilization of electronic information resources by academic staff at Makerere University. *University of Dar es Salaam Library Journal* 6.1:18-29.
- Agulu, C. C. and Aguolu, I. E. (2002) Libraries and information management in Nigeria, Maiduguri, Ed-Linform Services. 21-35.
- Aina, L. O. (2002) Research in information science an African perspective Ibadan, Stirling-Harden Publishers.
- Aina, L. O (2004) Library and Information Science text for Africa. Ibadan: Third World Information services, 365pp.
- Ajayi, N. A. and Akinniyi, A. R. (2004) Accessibility of health information to primary health care workers in some selected local government areas in Nigeria. *Owena Journal of library and information science* 1.2:31-38.
- Akinboye, J. O. (2003) Creativity and Innovation in life and the workplace, Ibadan, Stirling-Horden publishers Nigeria Limited.13
- Al-Daihani, S. M., and Rehman, S. U. (2007) A study of the information literacy capabilities of the Kuwaiti police officers. *Electronic Library* 25.5: 613-626.
- Ani, O. E. and Edem, M., B. (2010) Analysis of internet access and use by academic staff in the University of Calabar, Calabar, Nigeria. *Library Management* 31.7:535-545.
- Aramide, K.A., and Bolarinwa, O.M. (2010) Availability and use of audiovisual and electronic resources by Distance Learning Students in Nigerian Universities: A case study of National Open University of Nigeria (NOUN), Ibadan Study Centre.

- Library Philosophy and Practice. Retrieved March 13, 2011 from <http://unllib.unl.edu/LPP/aramide-bolarinwa.htm>.
- Armstrong, C. (2005). Defining information literacy for U.K Library and information up-date 4.1-2: 22-25
- Blackburn, R. T. and Lawrence, J. H. (1995) Faculty at work; motivation, expectation, satisfaction. Baltimore: The Johns Hopkins University Press. 389p.
- Chisenga, J. 2006. Information and communication technologies: opportunities and challenges for national and university libraries in eastern, central and southern Africa. Keynote paper presented at the Standing Conference of African National and University Libraries of Eastern, Central and Southern Africa (SCANUL-ECS), The Courtyard Hotel, Dar es Salam, Tanzania.
- Eason, K., Richardson, S. and Yu, L. 2000. Patterns of use of electronic journals. *Journal of Documentation* 56.5: 477-504.
- Egberongbe, H. S. (2011) The use and impact of electronic resources at the University of Lagos. *Library Philosophy and Practice* 2011.
- Hanif, U, Zabed Ahmed, S.M. and Nasir, U.M. (1997) Adequacy of reading resources and the satisfaction of the information needs of the faculty members: a case study of the Dhaka University Library. Retrieved April 10, 2009, from: <http://infosciencetoday.org>.
- Hughes, C. A. (1996) Scholarly productivity: a structural equation modeling analysis with special attention to the role of the campus information environment. Ph.D. dissertation, University of Michigan.
- Ibrahim, A.E. (2004) Use and user perception of electronic resources in United Arab Emirates University (UAEU). *Libri* 54:21-23
- Igbeka, J. and Okpala, A (2004) Analyses and patterns of CD-ROM database use in Kenneth Dike Library, University of Ibadan, Nigeria. *The Information Technologist*, 1.3. 1 and 2, June and December; 39-50.
- Igbo H.U. (2008) Information literacy skills possessed by students of the Faculty of education, university of Nigeria Nsukka (unpublished MLS degree project Dept of library and information science, University of Nigeria Nsukka.
- Iyoro, A. O. (2004) Serial availability, accessibility and utilization: perceptions of in-training information professionals in a Nigerian university. *The Nigerian Library Link* 11.2:66-71.
- Jagboro, K. O. (2003) A study of Internet usage in Nigerian universities: A case study of Obafemi Awolowo University Ile Ife, Nigeria; *First Monday*. 8. Retrieved February 20, 2010 from [http://firstmonday.org/issues/issue8\\_2/jagboro/index.html](http://firstmonday.org/issues/issue8_2/jagboro/index.html).
- Johnson, E. (2006) History of libraries in the Western world. Metuchen, NJ. Scarecrow. 331.
- Leelavathi, N. and Doraswamy, M. (2007) Knowledge and use of digital library resources by Engineering faculty members affiliated to Acharya Nagarjuna University, A.P. India. Retrieved November 20, 2009 from [www.ulib.org/conference/genpub/Leelavathi.doc](http://www.ulib.org/conference/genpub/Leelavathi.doc)
- Mabawonku, I. (2004) Library use in Distance Learning: A survey of undergraduates in three Nigerian Universities. *African Journal of Library, Archives and Information Science* 14.2: 151-165.
- Magara, E. (2002) Application of digital libraries and electronic technologies in Uganda. *African Journal of Library, Archival and Information Science* 12.2:145-154.
- Obaje, M.A., and Camble, E. (2008) 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
- Oduwole, A. A (2005) Information Technology skill acquisition and utilization by libraries as correlates of job performances in University and Research libraries in Nigeria, unpublished Ph.D Seminar, LARIS University of Ibadan, Ibadan.
- Oduwole A. A. and Akpati, C. B. (2003). Accessibility and retrieval of Electronic Information at the University of Agriculture Library Abeokuta, Nigeria 52.5:228 – 233. Retrieved May 12, 2008 from <http://www.emeraldinsight.com/researchregister>.
- Oduwole, A.A., Oyesiku, F.A. and Labulo, A.A. (2002) Online Public Access Catalogue (OPAC) Use in Nigerian Academic Libraries: A Case Study from the University of Agriculture, Abeokuta. *Library Herald*, 40.1: 21-27.
- Ojokoh, B. A. (2005) Studies on Internet access and usage by students of the federal university of technology, Akure, Nigeria. *African Journal of Library, Archives and Information Science* 15.1:149-153.
- Okello-Obura, C and Magara, E. (2008) Electronic Information access and utilization by Makerere University in Uganda. Retrieved May 20, 2009 from <http://creativecommons.org/licenses/by/2-0>
- Okiy, R. B. (2000) Assessing students and faculty use of academic libraries in Nigeria: The study of Delta State University, Abraka. *Frontiers of Information and Information Science* 1.1:65-75.
- Okwilagwe, O. A. and Opeke, R. O. (2002) The use of information in the development of creativity in Nigerian Secondary Schools. *African Journal of Educational Planning and Policy Studies* 3.1:177-188.
- Omolewa M..(2008). Most Universities are in deplorable state the Nigeria educational time No 20 July – August 16-18
- Popoola, S. O. (2001) Faculty awareness about library information products and services in Nigerian libraries *Gateway Library Journal* 4.1/2:1-12.
- Popoola, S. O (2008) The Use of information sources and services and its effect on the research output of social scientists in Nigerian Universities. *Library Philosophy and Practice*. .
- Popoola, S. O. and Haliso, Y. (2009) Use of library information resources and services as predator of teaching effectiveness of social scientists in Nigerian universities. *African Journal of Library, Archives and Information Science* 19.1:65-77.
- Ray, K. and Day, J. (1998) Student attitudes towards electronic information resources. *Information Research* 4.2:1-13.
- Sanni, G. and Idiodi, E. (2004) Library Computerization at the University of Benin, Nigeria. *African Journal of Library, Archives and Information Science* 14.1:65-76.
- Sani, A. and Tiamiyu, M. (2005) Evaluation of automated services in Nigerian Universities. *The Electronic Library*. 23.3 Retrieved May 21, 2009, from <http://www.emeraldinsight.com/Insight/ViewContentServlet>.
- Sharma, C. (2009) Use and impact of e-resources at Guru Gobind Singh Indraprastha University (India): A case study. *Electronic Journal of Academic and Special Librarianship* 10.1: 3
- Shokeen, A. and Kaushik, S. K. (2002) Information seeking behaviour of social scientists of Haryana Universities. *Library Herald* 40.1:29-30.
- Swain, D. K. and Panda, K. C. (2009) Use of e-services by faculty members of business schools in a state of India: A study. *Collection Building* 28.3:108-116.
- Udoudoh, S. J. (2009) Academic library services and the development of education in Niger State of Nigeria in the 21st Century.
- University of Ibadan (2006) Special release:2
- Yusuf, M. O. (2005) Integrating information and communication technologies (ICTS) in Nigeria tertiary education. The African symposium. *An Online Journal of Africa Education Research Network* 5.2:43-50.
- Zhang, Y. (1998) The impact of Internet-based electronic resources on formal scholarly communication in the area of library and information science: a citation analysis. *Journal of Information Science* 24.4:241-254.