



## INTERNATIONAL JOURNAL OF APPLIED TECHNOLOGIES IN LIBRARY AND INFORMATION MANAGEMENT

<http://www.jatlim.org>

International Journal of Applied Technologies in Library and Information Management 6 (1) 08 - 74 - 81  
ISSN: (online) 2467 - 8120  
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Manuscript Number: JATLIM - 2020-06.01/74 - 81

### Enhancing Quality Research Productivity of Academic Staff through Availability and Utilisation of E-Journals in Selected Tertiary Institutions in Cross River State Nigeria

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#### *Abstract*

*Academic staff care responsible for generating new ideas in any contemporary society due to their efforts in conducting quality research especially in this period of information proliferation. This study explored the qualities of research productivity of academic staff given availability and utilisation of e-journals in tertiary institutions in Nigeria. Two research questions were used and a single hypothesis was formulated to guide the study. The descriptive survey research design was adopted and the population of the study was two thousand four hundred and ninety-three (2493) academic staff, while four hundred and ninety-nine (499) academic staff were sampled using stratified and purposive sampling technique. A structured questionnaire was used for data collection. Data was analysed using descriptive statistics and one-way analysis of variance (ANOVA). The result showed that e-journals are available in all the institutions under study and that utilisation of e-journals has a significant influence on the research productivity of academic staff. Based on the findings, it was recommended that Electronic journals should be made available to academic staff without stringent barriers in getting access to them and that subscription to more electronic journals which may not be access by staff should be periodically made available by the institutions to boost their knowledge and access to materials for their research work.*

**Keywords:** Research, Research Productivity, E-Journals, Academic Staff, Tertiary Institutions.

#### **1.1 Introduction**

Research plays an indispensable role in the growth and development of a nation. The quality of education of a nation is measured by the quality of researches emanating from its tertiary institutions. They provide avenues for overcoming proficient problems; develop the means for analysis of organisations, services and behaviour.

Lecturers carry out researches to solve problems in their areas of specialisation. It is also the means through which ideas are generated that help in solving practical problems in various aspects of the society, ranging from educational, economical, medical, technological, financial, social, cultural, and political, among others. It is imperative to understand that publication

output is paramount to the life of academic staff and academic institutions in general. From the preceding, it is apparent that publication productivity affects not only the career development of academic staff but also attracts both local and global attention to tertiary institutions in form of financial grants, partnership and research collaborations. One of the fundamental criteria for promoting lecturers in universities is the number of publications they published such as journal articles, conference proceedings, textbooks, chapters in books, among others.

Availability and utilisation of electronic journals has significantly influenced research productivity of academics because electronic journals enable ease of access to the information remotely by academic staff in their offices or at homes without a physical visit to the library. Thus, electronic resources promote efficiency in the dissemination of information for research purposes in tertiary institutions (Thanuskodi, 2012). Electronic journals, also known as electronic serials are scholarly journals or intellectual magazines that can be accessed via electronic transmission. Some journals are 'born digital' in that they are solely published on the web and in a digital format, but most electronic journals originated as print journals, which subsequently evolved to have an electronic version, while still maintaining a print component. As academic research habits have changed in line with the growth of the Internet, the e-journal has come to dominate the journals world.

An e-journal closely resembles a print journal in structure: there is a table of contents which lists the articles, and many electronic journals still use a volume/issue model, although some titles now publish continuously. Online journal articles are a specialised form of electronic document: they have the purpose of providing material for academic research and study, and they are formatted approximately like journal articles

in traditional printed journals. Often a journal article will be available for download in two formats as a PDF and in HTML format, although other electronic file types are often supported for supplementary material. Articles are indexed in bibliographic databases, as well as by search engines. E-journals allow new types of content to be included in journals, for example, video material, or the data sets on which research has been based.

With the growth and development of the internet, there has been a growth in the number of new journals, especially in those that exist as digital publications only. A subset of these journals exist as open access titles, meaning that they are free to access for all, and have creative commons licenses which permit the reproduction of content in different ways. High-quality open access journals are listed in the directory of open access journals. Most, however, continue to exist as subscription journals, for which libraries, organizations and individuals purchase access.

## 1.2 Statement of the problem

It has been observed over the years that academic staff in the Southern Cross River State are performing below average in research and publication which hinder them from becoming current in the research cycle. However, many scholars had made effort to figure out those factors hindering academic staff productivity and found that lack of time, lack of research funding, lack of research resources, lack of motivation, lack of proper implementation of the research output by government or institutions, as some of those factors expected to barricade the use of e-journals in the tertiary institutions. As such, these menaces led to a drastic fall in research productivity of academic staff in the tertiary institutions. Meanwhile, some efforts have been put in place by the government such as the establishment of TETFUND, PTDF and many other means of scholarship award and

research grants to the academics in various institutions to develop their career objectives, but yet positive result has not been achieved. It is based on the foregoing that the researcher was motivated to investigate the influence of availability and utilisation of electronic journals on research productivity of academic staff in those tertiary institutions.

### 1.3 Objectives of the study are:

1. To find out the extent of availability of electronic journals for research by academic staff in tertiary institutions in Cross River State, Nigeria.
2. To find out whether utilisation of electronic journals influence research productivity of academic staff in tertiary institutions in Cross River State, Nigeria.

### 1.4 Research Question:

1. What is the extent of availability of electronic journals for research by academic staff in tertiary institutions in Cross River State, Nigeria?
2. To what extent does the utilisation of electronic journals influence research productivity of academic staff in tertiary institutions in Cross River State, Nigeria?

### 1.5 Research Hypothesis

As a guide to the study, a single null hypothesis was formulated.

Utilisation of electronic journals does not significantly influence the research productivity of academic staff.

### 2.1 Review of Related Literature

Several studies have reported about availability and utilisation of electronic journals. There are several categories of electronic information resources that form the e-resources family in which researchers consider in the quest for information for research and developments. On the availability of e-journal, Bassi and Camble

(2011) studied the gender difference in the use of electronic resources in university libraries of Adamawa State, Nigeria.

The study investigated types of electronic information resources available in the university libraries stated that e-journals, e-books, CD-ROM, e-thesis and dissertation, OPAC and internet are identified as some of the electronic information resources available in the university libraries. Adeleke and Nwalo (2017), explored availability, use and constraints to use of electronic information resources at University of Ibadan and noticed that 140 (46.7%) of the respondents indicated that electronic journals were highly available in the institution. In the same approach, Isah, Akor, and Udensi (2017) studied the assessment of electronic resources and utilisation in universities of North-Central Nigeria focusing on the available electronic resources. The result of the study showed that about 210(77%) of the respondents adhere to the availability of electronic journal for their research purposes.

On the utilisation of e-journal, In the study of Malemia (2014) on the use of electronic journal articles by academics at Mzuzu University, Malawi revealed that largest proportion of academics used electronic journal articles occasionally 40 (51.9%) i.e. less than once a month. However, 13% did use electronic journal articles daily and 13% once a week. Cross-tabulation of the frequency of use and faculty showed that all faculties did use electronic journals and with the least being those who used once a month 2 (3%). There was no significant correlation between the frequency of use of electronic journal articles and faculty.

These results are corroborated with research findings of Msagati (2014) who investigated the awareness and use of scholarly electronic journals by members of academic staff in Dares Salaam University College of Education (DUCE). The findings of the study revealed that electronic scholarly

journals at DUCE were mainly used for teaching purposes by 28 (59.6%) followed by research proposal writing by 26 (89.7%), current awareness by 19 (65.5%), research report writing by 17 (58.6%), writing conference paper by six (20.7%), consultancy service by three (10.4%), and increasing their knowledge by two (6.9%). These findings indicate that many respondents were not using electronic journals for consultancy services, current awareness, and writing conference papers, but rather for teaching purposes, writing research reports, and writing research proposals. Results from the interviews with Head of ICT section and Director of library as well as examination of usage statistics showed that members of academic staff were searching electronic journals mainly for teaching purposes and research purposes.

Bansode (2013) researched the use and impact of electronic journals on the users of the University of Pune, Pune, India. The finding of the study revealed that 69 (26.14%) faculties were using the electronic journals for various reasons such as keeping themselves updated with the new information appearing in their subject of interest and, preparing for the lectures and also to carry out their research, whereas 39 (14.77%) respondents are using electronic journals for keeping themselves updated with the new information and for research purpose which constitutes 28 faculties and 11 research scholars. Followed by 73 research scholars and 17 post-graduate students i.e. 90 (34.09%) respondents are using the electronic journals for just research purpose only, while 66 (25%) respondents which constitutes only the postgraduate students are using it for preparing for the examination.

In the Nigerian context, Aladeniyi (2017) studied the use of e-journals by academic staff of Rufus Giwa Polytechnic, Owo, Ondo State, Nigeria. The study investigated the purposes of academic staff using e-journals and the advantages they

derive in the use of e-journals. The study indicates that all the respondents make use of e-journals for research purpose with 126 (66%) agreed and 65 (34%) strongly agreed. The finding also revealed that those that use e-journals for writing proposal for research grants recorded the least with a total of 79 (41%) agreed and 37 (19%) strongly agreed. The study also shows that majority of the academic staff use e-journals because it serves as a good source of information with a total of 130 (90%) agreed, while only 10 (5%) disagreed. This is followed by those that said it is current and timely with a total of 122 (64%) respondents agreed. However, respondents that agreed with the point that they use e-journal because it results in better quality recorded the lowest with a total of 88 (62%).

As a result of the enormous increase of publication productivity by academic staff members, Ivwighreghweta and Oyeniran (2013) explored usage and awareness of e-resources by lecturers in two selected Nigerian universities, which are: Federal University, Otuoke and the Western Delta University, Oghara. The study revealed that e-journals are the mostly consulted e-resources which scores 52 (35%) of the response. Majority of the respondents 70 (47%) indicated that the major purpose of using e-journals is for research work and paper writing for publication 32 (21%). The study further revealed the majority of lecturers 81 (54%) who indicated that e-journals can aid their research work; this is followed by improving teaching ability 35 (23%). Subsequently, it also brings academic to the forefront of their profession, helps the development of the education system and helps to foster relationship among academics among others.

### 3.1 Research Methodology

This study adopted survey research design the population of this study comprises of all academic staff in the four government's

tertiary institutions of the southern senatorial district of the state. The population size is two thousand four hundred and ninety-three (2493) academic staff. Stratified and purposive sampling techniques were used in drawing the samples for the study. The sample

size of the study consists of 499 staff which is 20% of the total population that was drawn from the study area. The research instrument was a self-developed questionnaire. The data collected was analysed using descriptive statistics and one-way analysis of variance.

#### 4.1 Data Analysis

**Table 1: Availability of electronic journals in the tertiary institutions in Cross River State, Nigeria.**

S/N	Institutions	Available	%	Not available	%
1	UNICAL	198	54.70	164	45.30
2	CRUTECH, CAL	61	77.22	18	22.78
3	C.O.E AKAMKPA	31	77.50	9	22.50
4	College of Health Tech	15	83.33	3	16.67

The result in Table 1 above revealed that out of 362 academic staff of University of Calabar, 198(54.70%) responded that e-journals are available for academic research in the institution while 164(45.30%) kicked against the availability of e-journals for research. The table further revealed that 61(77.22%) of the staff in CRUTECH opined that e-journals are available for their research work while 18(22.78%) of the staff were of the view that e-journals are not available for academic

research in the institution. It was also observed from the table that 31(77.50%) of staff in C.O.E Akamkpa revealed that e-journals are available for research while 9(22.50%) believed that e-journals are not available for their academic research in the institution. Lastly, 15(83.33%) of academic staff in College of Health Tech shows that e-journals are available while 3(16.67%) were of the view that e-journals are not available for research in the institution.

**Table 2: One way analysis of variance (ANOVA) result on the influence of electronic journals on research productivity**

Variable	N	Mean	Std. Devi			
Low	135	19.3137	5.96753			
Moderate	153	20.2000	5.53119			
High	211	21.5640	5.34250			
Total	499	20.5050	5.66337			
Source of variation	SS	Df	MS	F-ratio	Sig.	
Between Groups	466.310	2	233.155	7.458	.001	
Within Groups	15506.427	496	31.263			
Total	15972.737	498				

**Table 3: Fisher's Least significant differences (LSD) Post hoc analysis on the influence of electronic journals on research productivity**

Variable	High (n=211)	Moderate (n=153)	Low (n=135)
High	21.56 <sup>a</sup>	1.36 <sup>b</sup>	2.25
Moderate	2.03* <sup>c</sup>	20.20	0.89
Low	3.66*	1.43	19.31
MS <sub>within</sub> =31.26			

a= group means along the principal diagonal

b=group mean differences above the principal diagonal

c=critical t-values below the principal diagonal

\*=shows significant p-values

The mean value ( $X=21.56$ ) for those who utilise electronic journals for their research work is higher than the mean value( $X=20.20$ ) for those who moderately and those ( $X=19.31$ ) of those who lowly utilise electronic journals for their research work. Hence, those who utilise electronic journals for their research work are more productive than those who do moderately and lowly utilise it. When these mean differences were further compared using one-way analysis of variance (ANOVA), the result as presented in Table 2 above showed that ( $F=7.458$ ,  $p<.05$ ). Since  $p(.001)$  is less than  $p(.05)$ , this implies that there is a significant influence of electronic journals on research productivity among academic staff. Hence, the null hypothesis is rejected. A post hoc analysis test was conducted using Fisher Least significant differences (LSD) and the result as presented in Table 3 showed that academic staff that utilises more of electronic journals are more productive in terms of research than other counterparts that moderately utilises it.

### 5.1 Discussion of Findings

The research question investigating the extent of availability of electronic journals for research by academic staff in tertiary institutions in Cross River State, Nigeria revealed positive responses about the availability of the e-journals in all four tertiary institutions under study by showing high percentage of academic staff response. All those staff believed that availability of the e-journals in their respective institutions resulted in positive utilisation by the staff members to attain high level of research output, this finding is in line with that of Bassi and Camble (2011) on gender difference in

use of electronic resources in university libraries of Adamawa State, Nigeria with revealed that e-journal is one among the types of electronic information resources available in the university libraries.

The finding also corroborates with that of Adeleke and Nwalo (2017), who explored availability, use and constraints to use of electronic information resources by postgraduate students at the University of Ibadan and noticed that majority of the respondents indicated availability of electronic journals in the institution. Also, Isah, Akor, and Udensi (2017) studied the assessment of electronic resources and utilisation in universities of North-Central Nigeria focusing on the available electronic resources. The result of the study showed that the majority of postgraduate students in universities of North-Central Nigeria revealed that electronic journals were available for their research purposes.

The hypothesis which stated that utilisation of e-journals does not significantly influence the research productivity of academic staff was rejected. This implied that the utilisation of e-journals has a significant influence on the research productivity of academic staff. This could be because the world has gone technological and most of the publications that are made in other areas which are important to the academic staff are mostly found in e-journals. Access to these journals helps them to study the works of other scholars to help them identify problems and areas that may not have been covered for further academic works. E-journals also provide them with the opportunity to understand other works and thus, have knowledge in certain areas that may not have

been possible without the use of e-journals.

The result could also be since the use of electronic journals is becoming important among researchers and academic staff worldwide. For example, in higher education, scholarly electronic journals have become essential tools for learning and research as they provide access to timely, high quality and relevant scientific information to scholars and researchers to keep them abreast with discoveries and developments. Moreover, members of academic staff use electronic journals to update their lecture notes as well as avoiding duplication of efforts. On the other hand, electronic journals have added gigantic resources to the collection and improved services of the library, enhanced access to journal literature and decreased demand for photocopy services as well as document delivery

The finding of the study was in line with that of Ivwighreghweta and Oyeniran (2013) that explored usage and awareness of e-resources by lecturers in two selected Nigerian universities, which are: Federal University, Otuoke and the Western Delta University, Oghara. The study revealed that e-journals are the mostly consulted e-resources which scores 52 (35%) of the response. Majority of the respondents 70 (47%) indicated that the major purpose of using e-journals is for research work and paper writing for publication 32 (21%). The study further revealed the majority of lecturers 81 (54%) who indicated that e-journals can aid their research work; this is followed by improving teaching ability 35 (23%).

This study also corroborated the research findings of Msagati (2014) who investigated the awareness and use of scholarly electronic journals by members of academic staff in Dar es Salaam University College of Education (DUCE). The findings of the study revealed that electronic scholarly journals at DUCE were mainly used for teaching purposes by 28 (59.6%) followed by

research proposal writing by 26 (89.7%), current awareness by 19 (65.5%), research report writing by 17 (58.6%), writing conference paper by six (20.7%), consultancy service by three (10.4%), and increasing their knowledge by two (6.9%). These findings indicate that many respondents were not using electronic journals for consultancy services, current awareness, and writing conference papers, but rather for teaching purposes, writing research reports, and writing research proposals.

### **Conclusion**

Based on the findings of the study, it was concluded that electronic journals for academic staff research work are available in all the institutions studied and that utilisation of electronic journals has a significant influence on research productivity of academic staff. And this could be because the world has gone technological and nearly all of the researches made in other areas which are significant to the academic staff are frequently found in e-journals and thus perform miraculous assistance in studying works of other scholars to aid them figure out problems and areas that may not have been covered for further academic works.

### **Recommendations**

Based on the findings of the study, it was recommended that:

- i. Electronic journals should be made available to academic staff of all the institutions studied without stringent barriers in getting access to them.
- ii. Subscription to more electronic journals which may not be access by staff should be periodically made available by the institutions to boost their knowledge and access to materials for their research work

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