

**UTILISATION OF ELECTRONIC RESOURCES FOR RESEARCH  
PRODUCTIVITY OF LECTURERS IN SPECIALISED UNIVERSITIES IN  
NORTHERN NIGERIA**

**By**

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**Abstract**

This study investigated the utilisation of electronic resources for research productivity of lecturers in specialised universities in northern, Nigeria. The population of the study consisted of three thousand eight hundred and twenty-seven 3,827 lecturers in eleven (11) fully operational public and private specialised universities in Northern Nigeria. Simple random sampling technique was adopted to select 400 lecturers across the eleven (11) specialised universities in Northern Nigeria. The study adopted self-designed structured questionnaire with 4-point likerts scale as well as observation checklist as data collection instruments. The study analysed the data using descriptive statistics (mean, frequency count and percentage) and regression analysis was used to test the null hypotheses at 0.05 level of significance. The study found that the three categories of staff published in all medium of publication, generally research productivity of lecturers in specialised universities in Northern Nigeria is low. From the regression result showed significant influence of utilisation of electronic resources use on the research productivity of lecturers in specialised universities in Northern Nigeria. The study recommend that the management of specialised university libraries in Northern Nigeria should make provision for relevant information resources for the lecturers, Libraries studied should also render more information services as such content awareness services and selective dissemination of information to lecturers as it enhance utilisation.

**Keywords:** Utilisation, electronic resources, research productivity. Specialised universities, Northern Nigeria.

**Introduction**

University can be described as an institution of higher learning that provides facilities for teaching/learning, research and community service which is authorised to grant academic degrees; specifically, one made up of an undergraduate division which confers bachelor's degrees and a graduate division which comprises a graduate school and professional schools each of which may confer master's degrees and doctorates (Izuagbe, 2021). However, it is important to understand that universities are not set up simply as degree mills to produce

students in learning centres, but primarily to conduct research, and disseminate outcomes and propagate innovation through the society. Thus, university is dedicated to providing academic staff and students with an enabling environment and infrastructure that can help them develop potentials for scholarship, creative work, professional realisation and services that culminate in its objectives of building a total man, by impacting knowledge, skills and capacity to identifying problems in the society. Research productivity refers to the number of publications produced by academic staff within a specified period of time. Academic staff are expected to publish papers in both local and international journals for recognition and promotion in their fields of specialisation. However, mostly priority is given to those publications in international journals because of their better output.

Promotion of academic staff in most Nigerian universities are governed by condition to be fulfilled, Lawal and Kannan (2020) revealed that the management of the university of Agriculture Abeokuta requires that Nigerian academic staff must have a certain number of international publications (articles in international journals) before being promoted to next level of academic ranks. The same thing applies to Federal University Technology, Minna where academic staff must have certain number/percentage of publication for them to be promoted especially from the rank of senior lecturer to professorial cadre. This is also true in respect of the University of Calabar, Nigeria for promotion from lower academic cadre to senior ranks in the university. In view of the low number of journal articles published in international journals, academic staff in Nigerian universities have been described as being less productive compared with their counterparts in developed countries (AsuataandEmasealu, 2022).

Research productivity refers to the number of publication per researcher. It can also be seen as number of articles published in standard journals or textbooks within a period of

time, by a researcher and the results are published either locally or internationally. Appahet al. (2020) viewed research productivity as the measure of academic achievement in terms of quality and quantity of publications over a period of time. The importance of research productivity in the career advancement and prestige of academic staff in universities is quite obvious as such it is not taken with levity by academic staff and employers. Research provides a good platform for members of academic staff to become successful academics. This is because research develops academic knowledge and reinforces the skills needed for effective knowledge. The need for timely and easy access to knowledge has transformed the formats in which information is packaged to meet the need of users. The time has passed when traditional or orthodox information resources constitute the sole repository of knowledge in the library. Electronic information resources are gradually dominating the university library although they cannot be said to have replaced print resources in the library. Electronic resources can serve as complement or supplement for traditional resources if the access to information yield more result (Ternenge&Kashimana, 2019).

Specialised universities were started as 3<sup>rd</sup> generation universities in Nigeria established between 1980 and early 1990. The objective for their establishment was to give effect to the nation's drive for the much-needed self-reliance in Science, Engineering and especially Technology. They are: Federal Universities of Technology and Agriculture in Owerri, Makurdi, Yola, Akure, Minna and Bauchi (Muhammad, 2021). In order to drive food security and enhance agriculture, the federal government of Nigeria established three universities of agriculture in Abeokuta, Makurdi and Umudike. The underlying philosophy is that the average Nigerian farmer should have easy access to the fruits of scientific agriculture. This paper is focused on specialised universities in Northern Nigeria.

### **Statement of the Research Problem**

Lecturers in universities are by the virtue of their appointments expected to be highly productive. Research productivity is one of the major indicators of significant contributions of lecturers to uplift the parent institutions where they work. Apart from showcasing the intellectual acquisitions of the parent institutions, research productivity is one of the criteria that are used in promoting lecturers. , lecturers that are not productive will also be perish and remain in one rank for years There are benefits of research productivity to lecturers who are highly productive in terms of career progression. However

From the casual literature and discussion with some lecturers in specialised universities the researcher discovered that majority of the libraries in specialized universities in Northern Nigeria still rely on outdated hard copies of information resources which could hardly be used by the lecturers in conducting researches. Only few of them have electronic information resources where the databases subscribed are still active. This perhaps could be the reason why the academic staff do not leverage on using the information resources from the libraries, they rather depend on information obtained from online which sometimes are not current, relevant or do not possess the quality required for effective and efficient research productivity. This is affirmed by Ifijeh, Ogbomo and Ifijeh (2018) who found a significant relationship between use of library resources and research productivity of lecturers in private Universities in South-South geopolitical zone of Nigeria. Tella, *et. al.* (2018) also corroborated that several environmental factors can influence lecturers' productivity, including inadequate facilities, classrooms, laboratories, or technology that can hinder lecturers' ability to conduct research effectively. It is on this basis that the researcher investigated the availability and utilization of electronic resources and environmental variables as determinants for research productivity of lecturers in specialized universities in Northern Nigeria.

## Research Questions

The following research questions were ask and answered in the study

- 1.. To what extent are electronic resources utilised for research productivity of lecturers in specialised universities in Northern Nigeria?
2. What is the level of research productivity of lecturers in specialised universities in Northern Nigeria?

## Literature Review

Adetomiwa (2020) investigated the wareness, knowledge and utilisation of electronic databases as predictors of research productivity of academic staff in private universities in Southwestern Nigeria Research productivity in universities is the totality of research done by academic staff within a given period. The quality of teaching, research and community service carried out by lecturers largely depends on access to quality electronic databases. Reports have shown that research productivity of academic staff in private universities in southwestern Nigeria is relatively low. Previous studies largely focused on interventions made to improve research productivity of academic staff with little consideration of the role of awareness, knowledge and utilisation of electronic databases, particularly in private universities. This study, therefore, was conducted to investigate awareness, knowledge and utilisation of electronic databases as predictors of research productivity in private universities in south western Nigeria.

Herzberg's Motivation Theory guided the study. The survey design of the correlational type was adopted. Twenty one private universities out of the 27 approved between 1999 and 2012 were purposively selected based on availability of functional electronic databases. Proportional to size and stratified random sampling techniques were

used to select 30% of academic staff across the various ranks in the selected universities, making a total of 657. The instruments used were.

### **Methodology**

The study employed survey research design. The population consisted of 3,827 lecturers in fully operational public and private specialised universities in Northern Nigeria.

Stratified sampling technique was adopted to select 400 lecturers across the eleven (11) specialised universities in Northern Nigeria. According to Thomas (2022), simple random sample is a randomly selected subset of a population where each member of the population has an exactly equal chance of being selected. This method is the most straight forward of all the probability sampling method, since it only involve single random selection and requires little advance knowledge about the population. In determining the sample size, Yamane formula modified by Polonia (2013) for calculating sample was used to calculate sample size with 95% confidence level.

The data collection instruments used for this study are self-designed structured questionnaire with 4-point likert s scale as well as observation checklist. The observation checklist contains list of electronic resources and the respondents are expected to tick either of the two (2) columns (Available or Not Available), this is to ascertain the availability or otherwise of the collections in the universities under study through the sectional heads of E-libraries. Data collected passed through validation using Cronbach alpha before administering them to the respondents. The data collected were analysed using descriptive statistics (mean, frequency count and percentage) for the demographic data of respondents such as gender, age, marital status and educational qualification. According to Adamu and Kabir (2019), a descriptive statistical analysis could be used to facilitate the reader understanding. Regression analysis was used to test the three null hypotheses at 0.05 level of significance.

## Results and Discussion

**Research Question Two: What extent is the availability of electronic resources utilised for research productivity of lecturers in specialised universities in Northern Nigeria**

**Table 4.3.2 Extent of Utilisation of Electronic Resources for Research Productivity of Lecturers in specialized Universities in Northern.**

Available Electronic Resources		Extent of Utilisation of Electronic Resources for Research Productivity of Lecturers in specialized Universities in Northern Nigeria										Mean	Decision
S/N	Electronic resources measured	Very High		High		Low		Very Low		N	FX (Sum)		
		Freq	%	Freq	%	Freq	%	Freq	%				
1	e-books	66	19	276	78	3	0.9	7	2	352	1105	3.14	Very High
2	e-journals	34	9.7	303	86	8	2.3	7	2	352	1068	3.03	Very High
3	e-conference Proceedings	4	1.1	11	3.1	297	84.4	40	11.4	352	683	1.94	Very Low
4	e-Encyclopedia	6	1.7	8	2.3	146	41.5	192	54.5	352	532	1.51	Very Low
5	CD-ROM	10	2.8	254	72.2	83	23.6	5	1.4	352	973	2.76	High
6	e-bibliography	3	0.9	12	3.4	310	88.1	27	7.7	352	695	1.97	Very Low
7	e-technical. Reports	5	1.4	13	3.7	330	93.8	4	1.1	352	723	2.05	Low
8	e-dictionaries	11	3.1	18	5.1	306	86.9	17	4.8	352	711	2.06	Low
9	Online databases	7	2.0	310	88.1	31	8.8	4	1.1	352	1025	2.91	High
10	e-pic/photos	3	0.9	8	2.3	340	96.6	1	0.3	352	717	2.04	Low
11	e-maps	13	3.7	9	2.6	328	93.2	2	0.6	352	737	2.09	Low
12	e-newspapers	1	0.3	291	82.7	52	14.8	8	2.3	352	989	2.81	High
13	Subject gateway	5	1.4	8	2.3	337	95.7	2	0.6	352	720	2.04	Low
14	e-magazine	2	0.6	58	16.5	9	2.6	28	80.4	352	483	1.37	Very Low
15	USENET	4	1.1	9	2.6	334	94.9	5	1.4	352	716	2.03	Low
16	FQAS	11	3.1	5	1.4	330	93.8	6	1.7	352	725	2.06	Low
17	e-manual	10	2.8	7	2.0	334	94.9	1	1.3	352	730	2.07	Low
18	e-Manuscript	8	2.3	14	4.0	329	93.5	1	1.3	352	733	2.08	Low
19	Internet websites	174	49.4	171	48.6	4	1.1	3	0.9	352	1220	3.46	Very High
											<b>Weighted Mean</b>	<b>2.28</b>	

Table 4.3.2 showed the extent of utilisation of electronic resources for research productivity of lecturers in specialized universities in Northern Nigeria. The bench mark for interpretations of the table 4.9 was the Weighted Mean of 2.28. The results reveal that, the following electronic resources had Very High utilization with their respective means: Internet websites (3.4), e-books (3.14) and e-journals (3.03). Also, the following electronic resources had high utilisation with their respective means: online databases (2.91), e-newspapers (2.81) and CD-ROM (2.76). The following electronic resources had Low utilization with their respective means: e-maps (2.09), e-manuscript (2.08), e-manual (2.07), FQAS (2.06), e-dictionaries (2.06), e-technical reports (2.05), e-pic/photos (2.04), subject gateway (2.04) and USENET (2.03). Finally, the following electronic resources had Very Low utilization with their respective means: e-bibliography (1.97), e-conference proceedings (1.94), e-encyclopedia (1.51) and e-magazine (1.37). Generally, the extent of Utilisation of Electronic Resources for Research Productivity of Lecturers in specialized Universities in Northern Nigeria was low

**Table 2** Research productivity of lecturers in specialised Universities in Northern Nigerian

**Total number of e-journals published inside Nigeria**

<b>Rating</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>Total</b>
<b>First Degree</b>	24	14	9	0	0	0	0	0	0	0	0	0	47
<b>Master</b>	0	0	0	113	68	45	0	0	0	0	0	0	225
<b>Ph.D</b>	0	0	0	0	0	0	16	24	16	8	7	9	80
<b>Total</b>	24	14	9	113	68	45	16	24	16	8	7	9	352

The table shows that 24 lecturers with first degree had 1 e-journal each , 14 had 2 e-journals, 9 had 3 e-journals published inside Nigeria respectively. The lecturer with masters degree,113 had 4 e-journals each, 68 had 5 e-journals , 45 had 6 each e- journals published inside Nigeria respectively, The lecturers with PhD, 16 had 15 e- journals each, 24 had 16 e-journals, 16 had 17 e- journals , 8 had 18 e- journals, 7 had 19 e- journals , 9 had 20 e –



journals each published inside Nigeria. Lecturers with PhD had more e-journal publications inside Nigeria more than those with Masters and First Degree.

**Total number of e-journals published outside Nigeria**

Rating	0.00	1.00	2.00	5.00	6.00	7.00	8.00	9.00	10.00	Total
<b>First Degree</b>										
<b>First</b>	31	8	7	0	0	0	0	0	0	47
<b>Master</b>	0	0	225	0	0	0	0	0	0	225
<b>Ph.d</b>	0	0	0	14	27	13	8	10	8	80
<b>Total</b>	31	8	332	14	27	13	8	10	8	352

The table shows that 31 lecturers with first degree had 0.00 e-journal each , 8 had 1.00 e-journals, 7 had 2.00 e-journals published outside Nigeria respectively. The lecturer with masters degree,225 had 2.00 e-journals each e- journals published outside Nigeria respectively, The lecturers with PhD, 14 had 5.00 e- journals each, 27 had 6.00 e- journals, 13 had 7,00 e- journals each , 8 had 8.00 e- journals, 10 had 9.00 e- journals , 8 had 10.00 e – journals each published outside Nigeria. Lecturers with PhD had more e-journal publications inside Nigeria more than those with Masters and First Degree.

**Total number of e-book published inside Nigeria**

Rating	0.00	1.00	2.00	3.00	4.00	Total
<b>First Degree</b>						
<b>First</b>	22	25	0	0	0	47
<b>Master</b>	0	0	135	90	0	225
<b>Ph.d</b>	0	0	43	25	6	80
<b>Total</b>	22	25	332	115	6	352

The table shows that 22 lecturers with first degree had 0.00 e-books each , 25 had 1.00 e-books, published inside Nigeria respectively. The lecturer with masters degree,135

had 2.00 e-books each 90 had 3.00 e- books published inside Nigeria respectively, The lecturers with PhD, 48 had 2.00 e-books each, 25 had 3.00 e- books, 6 had 4,00 e- books each , published outside Nigeria. Lecturers with PhD had more e-books publications inside Nigeria more than those with Masters and First Degree.

**Total number of e-book published outside Nigeria**

Rating	0.00	1.00	2.00	3.00	Total
First Degree	31	16	0	0	47
Master	157	68	0	0	225
Ph.d	0	34	25	13	80
Total	31	8	332	14	352

The table shows that 31 lecturers with first degree had 0.00 e-books each , 16had 1.00 e-books, published outside Nigeria respectively. The lecturer with masters degree,157 had 1.00 e-books each 68 had 1.00 e- books published outside Nigeria respectively, The lecturers with PhD, 34had 1.00 e-books each, 25 had 2.00 e- books, 13 had 3,00 e- books each , published outside Nigeria. Lecturers with PhD had more e-books publications inside Nigeria more than those with Masters and First Degree.

#### 4.4: Hypothesis Testing

. 4.4.1: Ho2: There is no significant influence of utilisation of electronic resources on research productivity of lecturers of specialised universities in Northern Nigeria.

**Table 4.4.1. Model Summary of Regression Analysis Utilisation of Electronic Resources**

Model	R	R Square	Adjusted R Square	Std. Error of the estimate
	0.594	0.353	0.352	0.994

a. Predictors: (Constant), Research Productivity

Table 4.4.1 shows the values of  $R=0.594$ ,  $R\text{-Square}=0.353$  and Adjusted  $R\text{ Square}$  is 0.352.  $R=0.594$  shows the correlation between utilisation of electronic resources (independent variable) and research productivity (dependent variable). The  $R\text{-Square}$  indicates what percentage of the variability the dependent variable is accounted for by the regression on the independent variable, which is 35.3%.

**Table 4.4.1: ANOVA Model of Regression Analysis of Utilisation of Electronic Resources and Research Productivity.**

Model	Sum of Squares	Df	Mean Square	F	Sig
Regression	65.254	1	65.254	65.843	0.001
Residual	325.443	350	0.930		
Total	390.697	351	66.184		

a..Dependent Variable: Research Productivity

a. Independent Variable(predictors) Constant: Utilisation of Electronic Resources

Table 4.4.1 showed the Value of  $F=65.843$  which was significant at a 0.05 level of significant ( $0.001 < 0.05$ ). Hence, the null hypothesis which states that, there is no significant influence of utilisation of electronic resources on research productivity of lecturers in specialised universities in Northern Nigeria was rejected. This implies that, there is significant influence of utilisation of electronic resources on research productivity of lecturers in specialised universities in Northern Nigeria.

### Discussion of the Findings

The finding revealed that internet websites, E- book and E- journal are not only available but also utilized for research productivity in universities studied. This are just Three out of the Twenty items available for research productivity of lecturers. The study revealed that the overall utilization of electronic resources in the universities is low, with the weighted mean of 2.8 ( see table 4-3.2 ). This could be connected to the problems affecting the use of electronic resources, such as lack of electricity among others. Furthermore, the low utilization

could be attributed to the fact that most of the lecturer personally subscribe to some databases where they are furnished with adequate information that cater for their information need. Or probably the lecturer have signed up to some academic social media where information sharing among colleagues is encourage such linked-in academic etc. The findings is similar to that of Onuoha and Chukwueke (2020), who investigated the provision and utilisation of school library information resources by students of Ndume Otuka Secondary School, Umuahia, Abia State, Nigeria. The .Findings of the study revealed the provision of different information resources such as textbooks, and magazines. Few of these resources were found to be utilized by the students. The extent of utilisation of the school library information resources was found to be low. On the other hand the study negate that of Kutu et al. (2020), the researchers examined the level of information resources availability, utilisation and job performance in selected university libraries in North-Central Nigeria. the Findings indicated that 77(75%) of the respondents revealed that there was high utilisation of E-resources, this result has a positive note on utilization of information resources in the area studied.

Finding revealed that all the three category of staff have: publication in e- journal inside Nigeria, publication in e- journal outside Nigeria, publication in e- book inside Nigeria, publication in e- book outside Nigeria, Generally the result showed that there is low level of research productivity of lecturers in specialised Universities in Northern Nigeria, the study is similar to that of Mbachu and Unachukwu (2022) carried out a study on comparative analysis of research outputs of academics in private and public universities in South East Nigeria. Multistage sampling procedure involving proportionate and disproportionate stratified sampling and simple random sampling was used to draw a sample size of 1119 academics from four public and four private universities in Anambra and Enugu States. Data were collected using questionnaire. The data was analysed by use of descriptive statistics. The

results of the study showed that research productivity of academics in both university types was low. the finding of the study negate that of Ladipo and Adeola (2021) investigated the influence of institutional factors on research productivity of academic staff in Nigerian universities. The study adopted survey research design while expectancy and institutional theories were used to provide the framework. The multi stage sampling procedure was used to select 724 as the sample size for the study. Findings from the study revealed an average level of research productivity among academic staff in Nigerian universities.

The study tested the hypothesis to ascertain the influence of electronic resources availability on research productivity of lecturers in the study area. Findings showed that there was significant influence of availability of electronic resources on research productivity hence the null hypothesis which stated that there is no significant influence of availability of electronic resources on research productivity of lecturers in specialised universities in Northern Nigeria was rejected. The finding agrees with the study of Mwantimwa (2021). The researcher examined academic staff and researchers' use of electronic resources in Tanzania. The findings of the study also revealed that electronic resources have positively impacted teaching and research activities in the study area. The finding also agrees with Mohammed et al. (2021). The researchers investigated the availability and use of electronic databases by scientists in agricultural research institutes in North Central Nigeria. The findings showed that there is significant relationship between availability of electronic databases and their use by scientists in agricultural research Institutes at 0.05 level of significance ( $r = 0.644$ ; 0.05 Significant level).

The study showed that, there is significant influence of utilisation of electronic resources on research productivity of lecturers in specialised universities in Northern Nigeria. Therefore the null hypothesis which state that, there is no significant influence of utilisation

of electronic resources on research productivity of lecturers in specialised universities in Northern Nigeria, was rejected. The finding agrees with Kutu et al. (2020). The researcher examined the level of information resources utilisation and job performance in selected university libraries in North-Central Nigeria. Findings indicated that there was relationship between level of information resources utilisation and academic librarians job performance in the selected university libraries at ( $r= 0.591$ , at 0.05 level of significant). The hypotheses tested revealed that job performance was significantly related to information utilisation.

## **Conclusion**

The study seeks to evaluate the utilisation of electronic resources for research productivity of lecturers in specialised universities in northern, Nigeria. From the result obtained the finding shows that, utilization of electronic resources was low in the Universities studied in northern Nigeria. The study further shows that the available resources are not utilised for research productivity by the lecturers of the institutions studied, the study also revealed that research productivity of lecturers with PhD is higher than that of lecturers with masters and first degree respectively, generally research productivity was low

## **Recommendations**

Base on the findings of the study the following recommendations are made;

1. The management of specialized universities in Northern Nigeria should provide relevant electronic resources that will cater for information need of the lecturers.
2. the management of the libraries studied should also adhere to the policy of publish or perish, this will encourage lecturers on research productivity
3. Libraries studied should render more information services as such current awareness services and selective dissemination of information to lecturers as it enhances utilization.
4. The management of universities studded should encourage the use of electronic resources for the lecturers.

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