

Availability, Accessibility and Use of Electronic Information Resources as Correlate of Research Output of Librarians in Federal Universities in North central zone, Nigeria.

By

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***Abstract:** This paper assessed the availability, accessibility and use of electronic information resources as correlate of research output of librarians in federal Universities in north central zone, Nigeria. The study was guided by three objectives and three corresponding research questions. Survey research design method was adopted for the study. The total population for the study was one hundred and nineteen (119) professional librarians in seven federal universities studied. Therefore, total enumeration or census was used since the population was manageable. Questionnaire and observation checklist were the instruments used for data collection. One hundred and sixteen (116) copies of questionnaire were returned and used for the analysis. Statistical tool such as frequency counts and percentages, mean and standard deviation were used to analyzed the data. The result of the analysis revealed that electronic information resources are available and accessible in Federal Universities in north central zone, Nigeria but the level of usage by librarians for their research output is minimal due to library routine. The study revealed further that research output of librarians are published in professional journals, conference proceedings, experimental designs, writing of book or book chapter, writing of monograph, producing works of artistic and creative nature, engaging in public debate and commentaries, exhibiting editorial duties, obtaining patent/s licences in terms of inventions sand many more. The major challenge faced by librarians in Federal universities in North central zone, Nigeria was lack of time due to library routine tasks. This study concluded that most librarians in Federal Universities in North central zone, Nigeria have access to electronic information resources but do not maximize these resources effectively and efficiently for their research output/productivity. Hence this study recommended that librarians' routine task should be minimized so that they can have time to embark on research activities using the electronic information resources.*

Keywords: Accessibility, Availability, Federal Universities, Information Resources, Librarians, North Central Zone, Nigeria, Research Output, Use of Electronic.

Introduction

Research output of librarians is the extent to which librarians engage in their own research and publish articles in refereed journals, conference proceedings, writing of book or book chapters, producing works of artistic and creative nature, gathering and analyzing original evidence as primary source, writing of monographs, developing experimental designs, engaging in public debate and commentaries, working with postgraduate students on dissertations and class projects,

obtaining research grants, carrying out editorial duties, obtain patents and licenses in terms of inventions. In a similar study Okato, (2011) maintained that research output is a means through which librarians contribute new knowledge to the existing body of knowledge. Research output of librarians is worthy of focus as the quality and quantity of their publications are a determining factor in their performance evaluation. Research output plays a major role in attaining success in the academia as it relates to promotion, tenure and salary of librarians. It has also been reported that the quality of research output by academia in any university system depends largely on the quality and quantity of information resources at their disposal. Powell (2010) maintains that research and publication help individuals to think critically and analytically. Librarians in academic libraries are considered as academic staff, so engaging in research has become an expected activity on their part. In another related study. Oduwole and Ikhizama (2010) use survey method to ascertain research output of librarians in Nigerian agricultural research institutes. They found out that research output provides a good platform for librarians to become successful academicians. This is because research develops their knowledge and reinforces the skills needed for effective knowledge transfer. It has become highly necessary for universities to invest more on access to information resources especially electronic resources.

Haridasan and Khan (2009) Maintained that electronic information resources refer to information bearing materials that provide access to users in a digital or in an electronic format. Electronic information resources also have been viewed as a resource in which information is stored electronically and accessed through electronic systems and networks. Electronic information resources have many functions and benefits which can be of immense use to librarians. Once a user is connected to the Internet such user can link up with any part of the world for whatever purpose the user has in mind, Okiki & Asiru, (2011) view electronic resources as the product of information communication technologies which are found relevant to aid librarians' performance and research process in the universities. Electronic Information Resources has brought about innovation in librarianship where access to information is made possible to library users beyond the physical boundary of the university library. According to Pullinger (2012) the academic information environment has changed for both librarians and patrons, since most of the information resources are now available in electronic format, the electronic information resources have unprecedented contribution on library collections.

The availability, accessibility and use of electronic information resources is very important as to the research output of librarians in Federal and other Universities in north central Nigeria, because it is perceived that when these resources are available, accessible and use, they contribute to greater research output of librarians and the development of the library at large. Hence, it appears that when electronic information resources are available, accessible and not use, it may hamper the research output of librarians. This reason informed the need to examine and assessed the availability, accessibility and use of electronic information resources on research output of librarians in Federal Universities in north central Nigeria. In another related study. Oduwole and Akpati (2013) investigate the availability of electronic information resources at the University of Agriculture library, Makurdi, Benue state, Nigeria. The study revealed that most members of the University community attest to have availability of electronic resources and it was easy to access and use electronic information resources to satisfy their research outputs. Electronic information resources are in digitised format which requires the use of computers and internet connectivity. Accessibility and Use of these resources is influenced by various factors. However, because of the flexibility of electronic information resources, they have added advantage over print materials in research conduction. Thus, the ease with which electronic information resources is accessed and use needed information significantly to influence publication output of librarians and this in turn has great impact on the research output of librarians in Federal Universities in North Central Zone, Nigeria.

1.0 Statement of the Problem

Research output contributes towards image building for Universities as well as their ranking. It is a criteria that is used for promotion and tenure of librarians in Universities and other higher institutions of learning in Nigeria. However, it seems likely that librarians record low research output, this low research output, could be librarians' inability to access and use adequate electronic information resources or could it be that librarians are inadequately accessing and using these electronic information resources on their research output? Therefore, this study assessed and examine the availability, accessibility and use of electronic information resources as correlates of research output of librarians in Federal Universities in North Central Zone, Nigeria.

Objectives of the study

The objectives of the study are to:

1. determine the research output of librarians in Federal Universities in North Central Zone, Nigeria.
2. determine the relationship between availability, of electronic information resources and research output of librarians in Federal Universities in North central zone, Nigeria..
3. identify factors militating against the research output of librarians in Federal Universities in North central zone, Nigeria.

Research Questions

The following research questions are postulated to guide the study:

1. What are the research output librarians in Federal Universities in North central zone, Nigeria?
2. What is the relationship between availability of electronic information resources and research output of librarians in Federal Universities in North central Zone, Nigeria?
3. What are the factors militating against research output of librarians in North central zone, Nigeria?

Literature Review

According to Sudhier and Abhila (2011) research output is expressed by the number of papers published by a selected unit in a given time. A well-known research output indicator is the number of publications produced by librarians within a given time. In a related study by Okonedo (2015). He examined research output and publications of librarians in public Universities in South –West, Nigeria. A descriptive survey research method was employed for the study. The purposive sampling method was used to select 11 out of 16 public Universities in the South-West Nigeria. All the librarians in the 11 public Universities were covered using total enumeration method. The sampled public Universities comprises 6 Federal and 5 state Government Universities in South-West, Nigeria. Questionnaires was used to collect data from

respondents. One hundred and sixty-six (166) copies of the questionnaires were administered and 144 were collected retrieved given a response rate of 85.5%.

However, the research only covered Universities in South-West, Nigeria. This prompted the research work at hand as it seek to study the availability, accessibility and use of electronic information resources and research output of librarians in Federal Universities in North Central Zone, Nigeria. This findings is in direct contrast with the study of Okiki (2012) who conducted a related study that dwells on research output of faculty members in Nigeria Federal Universities. The study adopted descriptive survey design called correlation type. It established the relationship between socio-demographic characteristics and research output of faculty members in Nigeria Federal Universities. The population of the study consisted of academic staff working in all Federal Universities in Nigeria. In a similar study by Ogbomo (2010) who reported that librarians research output is influence by the eagerness or enthusiasm to publish for greater research output. In the opinion of Isah, A (2010). It is clear that librarians build and disseminate knowledge in professional journals, through the publication of research and research can provide an important background for librarians to become successful academicians. Research output of librarians can be measured as publication count. It is the total number of productivity generated by a system and the input provided to create an output, this include efficiency more especially effectiveness, this is to ensure that the producer production process is working effectively or not. Thomsson Reuters (2011). Publication of electronic information resources for research output of librarians is central to scholarly activity and recognition in academic community. However, conference proceedings is the published record of a conference, congress, symposium, or other meetings sponsored by a society or association, usually but not necessarily including abstracts or report of papers presented by the participants. Another way of sharing research output is by

writing of book or book chapters. Okiki (2012) conducted a related study that dwells on research output of faculty members in Nigeria Federal Universities. The study adopted descriptive survey design called correlation type. It established the relationship between socio-demographic characteristics and research output of faculty members in Nigeria Federal Universities. In a similar study by Ansari M.N & Bushra, (2010). Electronic information resources play vital roles in helping librarians' in their quest to support the teaching and learning process at university level and to provide quality assistance in research productivity.

Methodology

The study adopted descriptive survey research method called correlation. Sharma (2017) stated that descriptive survey research method deals with describing the situation of a given population using some characteristics or features common among them. It is a process that involves planning the survey, questionnaire design sampling, data collection, data processing and drawing conclusion. According to Salaria (2012), descriptive survey research design is concerned with the collection of data on and describing in systematic manner, the characteristics, features or facts about a given population. The survey research design is relevant for this study because it is relatively cheap and serve as a fast way of collecting information and data on the availability, accessibility and use of electronic information resources as correlate of research output of librarians in Federal Universities in North central zone, Nigeria. The population of the study consisted of one hundred and nineteen (119) librarians in Federal Universities libraries in North Central Nigeria studied. Total enumeration or census was done because the population size was manageable.

Data Analysis and Discussion

Table 1: What are the research output of librarians in Federal Universities in North Central Zone, Nigeria?

Statement	SA	A	D	SD	FX	\bar{X}	STD	Decision
	4	3	2	1				
I enhance my research output by	79(70.5)	33(29.5)	0(0.0)	0(0.0)	415	3.71	0.46	Agreed

publications in professional journals								
I enhance my research output by participating in conference proceedings	77(68.8)	35(31.3)	0(0.0)	0(0.0)	413	3.69	0.47	Agreed
I enhance my research output by writing in books and contributing in book chapters	64(57.1)	48(42.9)	0(0.0)	0(0.0)	400	3.57	0.50	Agreed
I enhance my research output by producing works of artistic and creative nature	61(54.5)	49(43.8)	2(1.8)	0(0.0)	395	3.53	0.54	Disagree
I enhance my research output by gathering and analysing original evidence as primary source	82(73.2)	30(26.8)	0(0.0)	0(0.0)	418	3.73	0.44	Agreed
I enhance my research output by contributing in writing of monographs	78(69.6)	31(27.7)	3(2.7)	0(0.0)	411	3.67	0.53	Agreed
I enhance my research output through experimental designs	63(27.7)	46(41.1)	3(2.7)	0(0.0)	396	3.54	0.55	Disagree
I enhance my research output by engaging in public debate and commentaries	53(47.3)	48(42.9)	11(9.8)	0(0.0)	378	3.38	0.66	Disagree
I enhance my research output by working with postgraduate students on dissertations and class project	79(70.5)	31(27.7)	2(1.8)	0(0.0)	413	3.69	0.50	Agreed
I enhance my research output by carrying out editorial duties, obtaining patent and licences in terms of inventions	68(60.7)	38(33.9)	6(5.4)	0(0.0)	398	3.55	0.59	Disagree
Overall Mean					3.61			

From this table, values in the parenthesis are percentages of the frequency counts. SA= Strongly Agree, A= Agree, D= Disagree and SD= Strongly Disagree. Decisions are made to each response base on the overall mean 3.61.

Note: Decision Rule: mean values less than 3.61 are rejected, while those greater than or equal to 3.61 are Accepted.

The result from Table 1 shows the frequency of research output of librarians in Federal Universities in North Central Zone, Nigeria. From the table, the researcher observed that in each case of the statement, a larger percentage of the sampled respondents Strongly Agreed and Accept the following statement; I enhance my research output by publications in professional

journals, I enhance my research output by participating in conference proceedings, I enhance my research output by gathering and analysing original evidence as primary source, I enhance my research output by contributing in writing of monographs and I enhance my research output by working with postgraduate students on dissertations and class project. While they ***Rejected*** the following statement I enhance my research output by writing in books and contributing in book chapters, I enhance my research output by producing works of artistic and creative nature, I enhance my research output through experimental designs, I enhance my research output by engaging in public debate and commentaries, I enhance my research output by engaging in public debate and commentaries and lastly I enhance my research output by carrying out editorial duties, obtaining patent and licences in terms of inventions.

Table 2 What is the relationship between availability of electronic information resources and research output of librarians in Federal Universities in North Central Zone, Nigeria?

	SA	A	D	SD	FX	\bar{X}	STD	Decision
	4	3	2	1				
Availability of electronic information resources enhances research output of librarians	99(88.4)	13(11.6)	0(0.0)	0(0.0)	435	3.89	0.32	Agreed
Availability of electronic information resource is an essential tool for learning, research, teaching and consultancy for greater research output	92(82.1)	20(17.9)	0(0.0)	0(0.0)	428	3.82	0.39	Agreed
Availability of electronic information resources provide access to current information, save time and able to update frequently	110(98.2)	2(1.8)	0(0.0)	0(0.0)	446	3.98	0.13	Agreed
Availability of electronic information resources offers search capability, flexibility and result for greater research output	95(84.8)	17(15.2)	0(0.0)	0(0.0)	431	3.85	0.36	Agreed
The availability of electronic information resources provides access to information that can broaden the mind of librarians when embarking on research that leads to greater research output	101(90.2)	11(9.8)	0(0.0)	0(0.0)	437	3.90	0.30	Agreed

						3.89		
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From this table, values in the parenthesis are percentages of the frequency counts. SA= Strongly Agree, A= Agree, D= Disagree and SD= Strongly Disagree. Decisions are made to each response base on the overall mean 3.89.

Note: Decision Rule: mean values less than 3.89 are rejected, while those greater than or equal to 3.89 are Accepted.

The result from Table 2 shows the frequency on relationship between availability of electronic information resources and research output of librarians in Federal Universities in North Central Zone, Nigeria. From the table, the researcher observed that in each case of the statement, a larger percentage of the sampled respondents Strongly Agreed and Accepted the following statement; Availability of electronic information resources enhances research output of librarians, Availability of electronic information resource is an essential tool for learning, research, teaching and consultancy for greater research output, Availability of electronic information resources provide access to current information, save time and able to update frequently, Availability of electronic information resources offers search capability, flexibility and result for greater research output and The availability of electronic information resources provides access to information that can broaden the mind of librarians when embarking on research that leads to greater research output. The respondents have high rate of Acceptance to Availability of electronic information resources provide access to current information, save time and able to update frequently and the availability of electronic information resources provides access to information that can broaden the mind of librarians when embarking on research that leads to greater research output. Since they both have larger mean of 3.98 and 3.90 as compared with the overall mean. While they fail to Rejected other statements with their mean slightly less than the overall mean 3.89 with insignificant decimal figures.

Table 3 What are the challenges militating against the research output of librarians in Federal Universities in North Central Zone, Nigeria

Statement	SA	A	D	SD	FX	\bar{X}	STD	Decision
	4	3	2	1				
Lack of fund to facilitate robust and reliable internet connectivity affect research output negatively	102(91.1)	10(8.9)	0(0.0)	0(0.0)	438	3.91	0.286	Agreed
Lack of adequate power supply is one of the factor militating against research	104(92.9)	8(7.1)	0(0.0)	0(0.0)	440	3.93	0.259	Agreed

output								
Lack of telecommunication infrastructure slow down research output	96(85.7)	16(14.3)	0(0.0)	0(0.0)	432	3.86	0.351	Agreed
Poor level of utilization of internet facilities among policy makers, Government officials and the ruling class have an effect on research output	94(83.9)	18(16.1)	0(0.0)	0(0.0)	430	3.84	0.369	Disagree
Lack of time and adequate publication skills affect librarians research output	88(78.6)	24(21.4)	0(0.0)	0(0.0)	424	3.79	0.412	Disagree
Overall Mean						3.86		

From the table, values in the parenthesis are percentages of the frequency counts. Decisions are made to each response base on the overall mean 3.86. SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree, FX= Weighted Sum and \bar{X} = Mean

Note: *Decision Rule: mean values less than 3.86 are regarded as low level of awareness, while those equal to 3.86 are regarded as award and those greater than 3.27 are highly awarded.*

The result from Table 3 shows the challenges militating against the research output of librarians in Federal Universities in North Central Zone, Nigeria. From the table, the researcher observed that in each case of the statement, a larger percentage of the sampled respondents Strongly Agreed and ***Accept*** the following statement; Lack of fund to facilitate robust and reliable internet connectivity affect research output negatively, Lack of adequate power supply is one of the factor militating against research output and Lack of telecommunication infrastructure slow down research output. While they ***Rejected*** the following statement Poor level of utilization of internet facilities among policy makers, ruling class have an effect on research output and Lack of time and adequate publication skills affect librarians research output.

Conclusion

From the findings of the study it could be deduced that no librarian can achieve it goal and objective without availability, accessibility and use of electronic information resources. In the recent knowledge-based society, the need for universal access and use of electronic information resources is imperative for librarians to redefine their stand in terms of research output. It is obvious from the finding of this study that most librarians in Universities in north central Nigeria have access to electronic information resources but they are not adequately using these resources

on their research output. In addition to the findings of this study, quite a lot of electronic information resources were made available, accessible and frequently used in the Federal Universities. In spite of this fact, the study documented some challenges facing librarians in using these resources. As deduced in this study, the librarians have access to electronic information resources and use them for other purposes.

Recommendations

Based on these findings, the following recommendations are made:

1. In making electronic information resources available, accessible for use, librarians in the study areas should liaise with university management to provide access to electronic information resources through online subscription of data for browsing, increase in internet bandwidth, constant electricity, paying utility bills as when due and provision of conducive environment for research work.
2. Librarians' routine task should be minimized by the university management so that they can have time to embark on research activities which will in turn boost University image.
3. Librarians in the under study areas should try as much as possible to publish in patent, certified invention and scientific peer-reviewed.

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