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## Accessibility and Usage of Electronic Information Resource on Research Output of Librarians in Ekiti, Ondo and Osun States (2010 – 2015)

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# **Accessibility and Usage of Electronic Information Resource on Research Output of Librarians in Ekiti, Ondo and Osun States (2010 – 2015).**

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## **Abstract**

*The accessibility and use of electronic information resources enhance librarians research output by providing various information needed for research. Librarians are regarded as academics and are expected to publish like other academic staff, but it seems that librarians record low research output when compared with lecturers or other academic staff. The aim of this study is to investigate accessibility, use of electronic information resources and research output of librarians in universities in Ekiti, Ondo and Osun States of Nigeria. The survey research design was adopted for the research. The findings reveals that there was high level of accessibility and use of electronic information resources by librarians but not on research output that librarians published mostly in journals. The major challenge faced by librarians in this States was lack of time due to library routine tasks. This study concluded that most librarians in universities in study locale have access to electronic information resources but they do not maximize the use of these resources for their research work. 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:** Research output, Librarians, Accessibility, Use of electronic information resources, Universities

## **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 books or book chapters, gathering and analyzing original evidence, working with postgraduate students on dissertations and class projects, obtaining research grants, carrying out editorial duties, obtaining patents and licenses, writing monographs, developing experimental designs, producing works of artistic or creative nature, engaging in public debates and commentaries. Research is a vital and indispensable activity in universities and research institutions. It has become essential for a university's prestige as well as the career of librarians. Research provides a good platform for librarians to become successful academics. This is because research develops their knowledge and reinforces the skills needed for effective knowledge transfer. It also inspires librarians towards hard work, fills the gaps of previous researches, and creates an opportunity for future research. Research output is a means by 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 academics in any university system depends largely on the quality and quantity of information resources at their disposal (Popoola, 2008). Librarians in academic libraries are considered as academic staff, so engaging in research has become an expected activity on their part. Despite the benefits of research output to librarians, they do not conduct enough research and publication. Librarians when compared with other academic staff, record low publication output and this has affected the rate of promotion of many librarians, these may be due to lack of access to adequate electronic information resources, due to economic crises, subscription to current journals, lack of time for research work due to the nature of their routine work, insufficient skills in research, poor training programme on research and erratic electric power supply, these may lead to poor research output of the librarians.

The accessibility and use of electronic information resources are very important as to the research output of librarians in universities, because it is perceived that when these resources are accessible, the use will be easy and may contribute to the research output and the development of the library at large. The accessibility and use of the electronic information resources will be of immense benefit to librarians in universities in Ekiti, Ondo and Osun State, Nigeria. Electronic information resources will assist them to produce or publish a good research output which can be added to existing knowledge. Electronic information resources provide access and use according to various literature reviews and these can broaden the mind of librarians when embarking on research which will lead to quality research or output. The accessibility of electronic information resources enhances librarians research output by providing various information needed for research. It also increases access and use of information materials that will be of immense benefit to librarians in their research work.

Despite the importance and advantages offered by electronic information resources, studies have identified some problems associated with accessibility and use of electronic information resources, These problems range from lack of or inadequate resources, mainly computers, poor internet connectivity, inappropriate usage of electronic information resources and lack of appropriate skills in research among librarians. In spite of the advantages offered by electronic information resources, not much have been explored by librarians in their research output on this subject matter, hence the need for their study.

### **Statement of the Problem**

Research output contributes to the image building of universities as well as their ranking. Research output is a criterion that is used for promotion and tenure of librarians in universities and other higher institution of learning in Nigeria. Unfortunately, it seems likely that librarians record low research output when compared with lecturers or academic staff and even the one they publish does not rank high in academics. This low research output could be librarians' inability to access electronic information resources or could it be that librarians are inadequately using these electronic information resources on their research output. Moreover, previous work on accessibility and use of electronic information resources may not have focused on the possible influence which accessibility and use of electronic information resources could have on research

output of librarians in the study locale. Therefore, this study sought to investigate accessibility and use of electronic information resources as correlates of research output of librarians in Ekiti, Ondo and Osun States universities.

### **Objective of the Study**

The main objective of this study is to investigate the relationship between electronic information resources accessibility and use towards research output of librarians in universities in Ekiti, Ondo and Osun States, Nigeria. The specific objectives are to:

1. examine the relationship between accessibility of electronic information resources and research output of librarians in the study locale;
2. determine the relationship between the use of electronic information resources and research output of librarians in the study locale;.
3. identify the challenges of research output of librarians in the under studied universities.

### **Research Questions**

In order to achieve the above objectives of the study, the following research questions were used to gather data for the research:

1. To what extent are electronic information resources accessible to librarians in their research output in universities in Ekiti, Ondo and Osun States?
2. What is the level of use of electronic information resources by librarians in their research output in universities in Ekiti, Ondo and Osun States?
3. What are the challenges of research output among librarians in Ekiti, Ondo and Osun States?

### **Hypotheses**

The following null hypotheses were formulated to guide this study, and were tested at 0.05 level of significance:

1. H<sub>01</sub>: There is no significant correlation between accessibility of electronic information resources and research output of librarians in universities in Ekiti, Ondo and Osun States.
2. H<sub>02</sub>: There is no significant correlation between the use of electronic information resources and research output of librarians in universities in Ekiti, Ondo and Osun States.

### **Review of Literature**

According to Terry & Kieran (2016), in their study on Research Output of Academic Librarians from Irish Higher Education Institutions 2000–2015: reveals that very small number of librarians published regularly and extensively, 50% of those that published only published once and this is a cause for concern; that promotion or status is not crucial drivers for research activity but career progression more important; library staff working at professional level are much more likely to publish; time and lack of institutional support remain key barriers to research activity and writing groups and initiatives can have a positive impact on publication rates. In the study of Okonedo et.al (2015), reveals that the level of librarians' research productivity is high within the period of 2009-2014, while ranking the publication efforts of librarians, it was discovered that

articles in learned journals ranked high, followed by publication of chapters in textbooks and that librarians publish more in international journals than local journals and librarians are motivated to publish mostly for promotion. The study was in line with Okpe, Simisaye & Otuza (2013) their finding reveals that research output within the studied period, journal articles top the list while conference and workshop papers followed respectively. Okiki (2013) reveals that research productivity was high in the publishing of journal articles, technical reports, conference papers, working papers, and occasional papers. On the other hand, their research output was lower in the publishing of textbooks, book chapters, monographs, and patents and certified inventions. Also Babalola and Nwalo (2013) their study on influence of Job Motivation on the Productivity of Librarians in Colleges of Education in Nigeria, reveals that a good number of the librarians are not productive in terms of publications output. For instance, 103 (34.9%) respondents have not published any article in professional journals in the past three years, 45 (15.3%) have published one, 77 (26.1%) have published two; 59 (20.0%) have published three and 11 (3.7%) have published more than three. In the study of Chiemekwe, Longe, and Shaib (2009) reveals that the research output from Nigerian tertiary institutions research publication remained a yardstick for promotion in the academia in Nigeria. While Ogbomo (2010) argue that publication requirement is an entirely new one for librarians in Nigeria and further stressed that previously, librarians have only three requirements for promotion. She also find out that too much demand of daily work routine, rating of journals titles, weak /poor research orientation, lack of academic freedom and lack of interest are barriers to publication output.

### **Accessibility of Electronic Information Resources and Research Output of Librarians**

Access to information is imperative to successful conduct of research in universities. Moon, Hossain, Kang and Shin (2012) in discussing the role of access to information in research, opined that access to relevant information is necessary for academic staff to take efficient decision in his/her research. Hoq (2012) also view access and use of information as being vital in efficient research process. Aina (2012) in his discourse argued that access to information is critical in research in Africa. The study of Mahmood, Hartley and Rowley (2011), affirm the importance of access to information to facilitate and support efficient and productive research. Foster, Heppensta, Lazarz and Broug (2008) reveals a low level of access and use of emerging electronic information resources by academic staff in Nigerian universities which are critical to effective research in universities around the world. They also argued that inadequate access and use of electronic resources affects the publication outputs of Nigerian universities in international journals is reportedly low, and publication output is a major indicator of productivity; this implies that member of academic staff in Nigerian universities are not internationally productive. The study of the pattern of access of the Internet resources on teaching and research in Obafemi Awolowo University, Nigeria by Nwezeh (2010) reveals high level of accessibility and utilization of ICTs particularly the Internet by the academic staff, as 73.9% of them made regular use of the Internet in their research activities.

### **Use of Electronic Information Resources and Research Output of Librarians**

Use of electronic information resources has improves the output of librarians in various ways, improved access to, and availability of literature and ease of use. Information is an essential commodity that needed for improving teaching and research output of librarians. According to Gakibayo, Odongo and Obura (2013), they reveal that ICTs have brought a tremendous change in nature, boundaries and structure of information. In the study done by Sivathaasan and

Velnampy (2013), on use of electronic information resources and academic performance of university teachers, they jointly indicate that usage of electronic information resources has a strong positive association with academic performance ( $r = 0.623$ ,  $p < 0.01$ ) and it has an impact on academic performance at the rate of 38.8% ( $R^2 = 0.388$ ). Oyedapo and Ojo (2013) in a study on the use of electronic information resources in Obafemi Alowowo University observe very low usage of electronic resources. The major reason that contributed to low utilization of electronic resources was limited searching skills. Madhusudhan (2010) examine the use of e-resources by research scholars of Kurukshetra University in India. It was finding that “electronic information resources have become an integral part of the information needs of research scholars at Kurukshetra University. Sujatha and Murthy (2010) survey the use of electronic information resources by scientists, research scholars and postgraduate students in the Fisheries Sciences Institutions of South India. The study shows that there has been significant use of electronic information resources mainly for research purposes among the respondents. While Popoola (2008) find out that there are many and interaction effects of the use of information sources and services on research output of academic staff.

### **Challenges of Research Output of Librarians in Universities Using Electronic Information Resources**

There are challenges associated with the access and use of electronic information resources by librarians in the study locale. According to Egberongbe (2011), he identifies lack of information retrieval skills for exploiting electronic information resources, thus making the level of usage of resources by librarians as low. Harle (2010), substantial barriers to electronic information resources access and use include a lack of research culture. He further indicates that “although connectivity is steadily beginning to improve, good reliable high-speed broadband connections are still not assured in all countries or in all parts of the countries”. Damilola (2013) found that poor electricity supply greatly hindered the use of electronic information resources. This was represented by 117(46.8%) of the respondents and poor internet connectivity was another hindrance which greatly affected the use of electronic information resources, this was confirmed 100(40%) of the respondents. It was also gathered that electricity was needed for resources to be accessed at any time from any part of the world, and the web servers that host locally digitized contents and proxy server that provide authentication and remote access of digitization and uploading of content and maintenance of the software also depended on the availability of electricity. While Anaraki and Babalhavaeji (2013) found that the most obstacles to the use of library electronic resources were inadequate information about existence of these databases and lack of training.

**Table 1: Electronic Information Resources Accessibility**

	<b>Very Readily Accessible</b>	<b>Readily Accessible</b>	<b>Occasionally Accessible</b>	<b>Not Accessible</b>	<b>Mean</b>	<b>SD</b>
<b>AGORA</b>	93(65.0%)	34(23.8%)	9(6.3%)	7(4.9%)	3.49	0.82
<b>JSTOR</b>	83(58.0%)	44(30.8%)	13(9.1%)	3(2.1%)	3.45	0.75
<b>HINARI</b>	76(53.1%)	46(32.2%)	17(11.9%)	4(2.8%)	3.36	0.80
<b>TEAL</b>	80(55.9%)	37(25.9%)	19(13.3%)	7(4.9%)	3.33	0.89
<b>OARE</b>	69(48.3%)	53(37.1%)	15(10.5%)	6 (4.2%)	3.29	0.82

E-Library	75(52.4%)	44(30.8%)	12(8.4%)	12(8.4%)	3.27	0.94
ONLINE LIBRARY SERVICES	60(42.0%)	60(42.0%)	13(9.1%)	10(7.0%)	3.19	0.87
EBSCOHOST	65(45.5%)	42(29.4%)	30(21.0%)	6(4.2%)	3.16	0.90
Science Direct E-Journal	51(35.7%)	51(35.7%)	33(23.1%)	8(5.6%)	3.01	0.90
FreeFullText.Com	51(35.7%)	54(37.8%)	20(14.0%)	18(12.6%)	2.97	1.00
E-Directory	46(32.2%)	56(39.2%)	29(20.3%)	12 (8.4%)	2.95	0.93
Nigeria Virtual Library (NVL-NUC)	48(33.6%)	54(37.8%)	27(18.9%)	14(9.8%)	2.95	0.96
BOONE	48 (33.6%)	45(31.5%)	31(21.7%)	19 (21.7%)	2.85	1.03
THE FEDERALIST	43(30.1%)	53(37.1%)	26(18.2%)	21(14.7%)	2.83	1.02
Database of African Theses and Dissertation (DATAD)	46(32.2%)	47(32.9%)	28(19.6%)	22(15.4%)	2.82	1.05
British Library of Development Studies (BLDS)	41(28.7%)	49(34.3%)	32(22.4%)	21(14.7%)	2.77	1.03
IMF E-Library	43(30.1%)	47(32.9%)	22(15.4%)	31(21.7%)	2.71	1.12
MENDELEY (Reference)	41(28.7%)	39(27.3%)	36(25.2%)	27(18.9%)	2.66	1.09
Educational Research Information Centre (ERIC)	41(28.7%)	66(46.2%)	16(11.2%)	20(14.0%)	2.90	0.98
ALUKA	40(28.0%)	38(26.6%)	36(25.2%)	29(20.3%)	2.62	1.10

**Sources: Field survey, 2017**

Table 4.3 shows the opinion of the respondents on the electronic information resource accessibility in universities in Ekiti, Ondo and Osun States. From the result, all the electronic information resources are accessible using the mean score of greater than 2.5. The following scores were obtained: AGORA (3.49), JSTOR (3.45), HINARI (3.36), TEAL (3.33), OARE (3.29), E-Library (3.27), ONLINE LIBRARY SERVICES ( 3.19), EBSCOHOST (3.16), Science Direct E-Journal (3.01), FreeFullText.com (2.97), NVL-NUC (2.95), E-Directory (2.95), ERIC (2.90), BOONE (2.85), THE FEDERALIST (2.83), DATAD (2.82), BLDS(2.77), IMF E-Library (2.71), MENDELEY (Reference) (2.66), and ALUKA (2.62). Using a 4-point scale, the table explained the mean score obtained. Table 4.3 shows that all the electronic information resources are accessible, given that a mean score greater than 2.5 was obtained for all the electronic information resources listed. However, the table shows that AGORA (mean = 3.49) is the electronic information resources that is most very readily accessible followed by JSTOR which has (mean = 3.45).

**Table 2: Electronic Information Resources Use**

	<b>Very Often</b>	<b>Often</b>	<b>Rarely</b>	<b>Never</b>	<b>Mean</b>	<b>SD</b>
<b>AGORA</b>	81(56.6%)	36(25.2%)	20(14.0%)	6(4.2%)	3.34	0.87
<b>JSTOR</b>	72(50.3%)	45(31.5%)	19(13.3%)	7(4.9%)	3.27	0.87
<b>HINARI</b>	71(49.7%)	44(30.8%)	22(15.4%)	6(4.2%)	3.26	0.87
<b>E-Library</b>	76(53.1%)	36(25.2%)	20(14.0%)	11(7.7%)	3.24	0.96
<b>TEAL</b>	71(49.7%)	44(30.8%)	17(11.9%)	11(7.7%)	3.22	0.94
<b>EBSCOHOST</b>	59(41.3%)	49(34.3%)	27(18.9%)	8(5.6%)	3.11	0.90
<b>OARE</b>	60(42.0%)	41(28.7%)	28(19.6%)	14(9.8%)	3.03	1.01
<b>ONLINE LIBRARY SERVICES</b>	54(37.8%)	52(36.4%)	16(11.2%)	21(14.7%)	2.97	1.04
<b>E-Directory</b>	45(31.5%)	57(39.9%)	29(20.3%)	12(8.4%)	2.94	0.93
<b>Science Direct E-Journal</b>	44(30.8%)	58(40.6%)	28(19.6%)	13(9.1%)	2.93	0.93
<b>Nigeria Virtual Library (NVL-NUC)</b>	37(25.9%)	62(43.4%)	29(20.3%)	15(10.5%)	2.85	0.93
<b>Educational Research Information Centre (ERIC)</b>	45(31.5%)	51(35.7%)	24(16.8%)	23(16.1%)	2.83	1.05
<b>THE FEDERALIST</b>	41(28.7%)	52(36.4%)	32(22.4%)	18(12.6%)	2.81	0.99
<b>Database of African Theses and Dissertation (DATAD)</b>	42(29.4%)	48(33.6%)	36(25.2%)	17(11.9%)	2.80	0.99
<b>FreeFullText.com</b>	45(31.5%)	51(35.7%)	20(14.0%)	27(18.9%)	2.80	1.08
<b>BOONE</b>	48(33.6%)	38(26.6%)	34(23.8%)	23(16.1%)	2.78	1.08
<b>British Library of Development Studies (BLDS)</b>	40(28.0%)	43(30.1%)	38(26.6%)	22(15.4%)	2.71	1.04
<b>MENDELEY (Reference)</b>	33(23.1%)	53(37.1%)	34(23.8%)	23(16.1%)	2.67	1.01
<b>ALUKA</b>	36(25.2%)	33(23.1%)	40(28.0%)	34(23.8%)	2.50	1.11
<b>IMF E-Library</b>	33(23.1%)	40(28.0%)	34(23.8%)	36(25.2%)	2.49	1.11

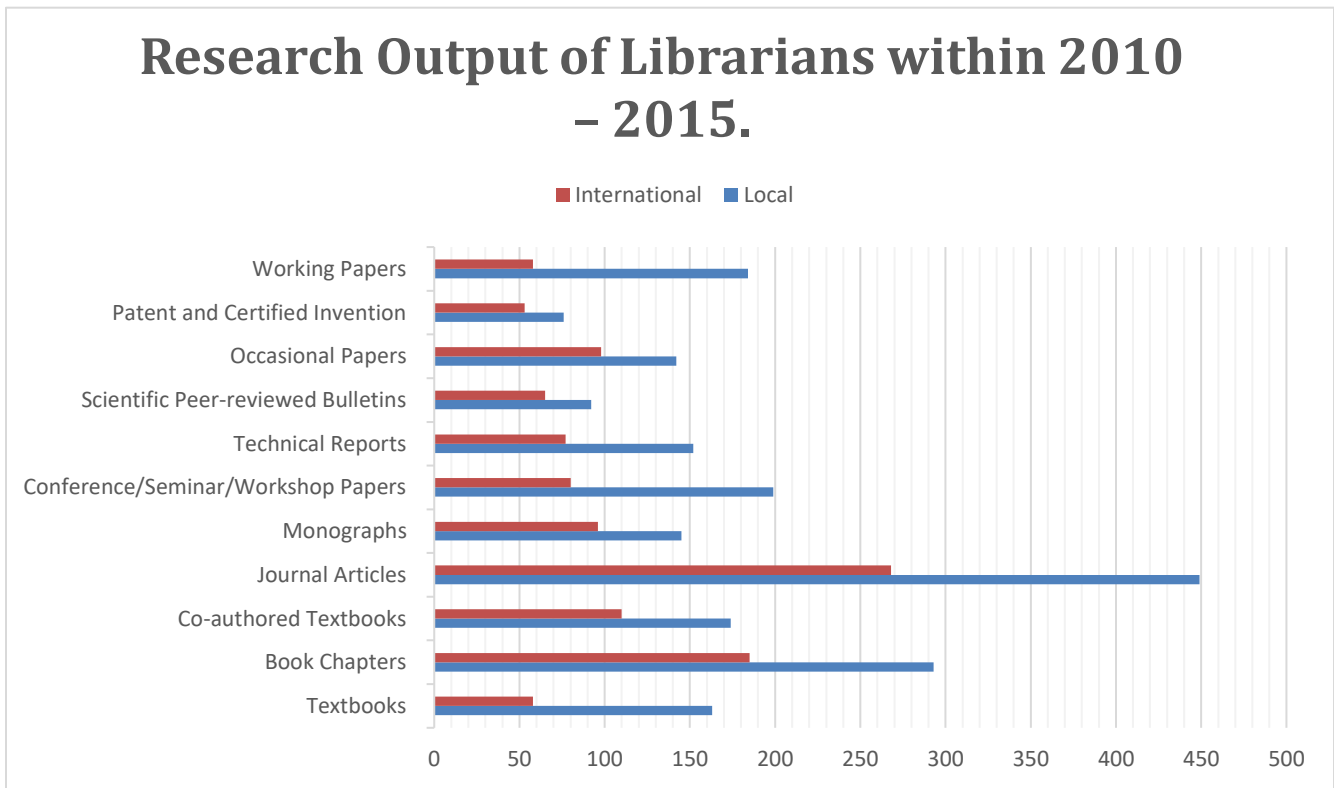
**Source: Field survey, 2017**

Table 4.4 presents the opinion of the respondents on frequency of use of electronic information resource in universities in Ekiti, Ondo and Osun States. Using a 4- likert scale, the table explained using the mean score obtained. The electronic information resources that are utilised include AGORA (3.34), JSTOR (3.27), HINARI (3.26), E-Library (3.24), TEAL (3.22), EBSCOHOST (3.11), OARE (3.01), ONLINE LIBRARY SERVICES (2.97), E-Directory (2.93), Sciences Direct E-Journal (2.93). NVL-NUC (2.85), ERIC (2.83), THE FEDERALIST (2.81), DATAD (2.80), FreeFullText.com (2.80), BOONE (2.78), BLDS (2.71), MENDELEY (Reference) (2.67) and ALUKA (2.50). Based on their mean score is above 2.5. Further analysis



reveal less than 2.5 mean obtained from respondents in IMF E-Library (2.49) which is not fully utilised like other electronic information resource in the study locale. However, the most often used of all are AGORA (3.34), JSTOR (3.27), HINARI (3.26), E-Library (3.24), TEAL (3.22), EBSCOHOST (3.11) and OARE (3.01).

**Table 3: Research output of librarians in the universities in Ekiti, Ondo and Osun States**



**Figure 6.**

**Source: Field survey, 2017**

The finding to question four revealed that research output of librarians in the study locale was high in some publications like Journal Articles (717), Book Chapters (478), Co-authored Textbooks (284) and Conference/Seminar/Workshop Papers (279). While the remaining publications Working Papers (242), Monographs (241), Technical Reports (229), Textbooks (221), Scientific Peer-reviewed Bulletins (157) and Patent and Certified Invention (129) records low research output.

**Table 4: Challenges of Librarians Research Output.**

	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean	SD
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Lack of time due to library routine tasks	33(23.1%)	49(34.3%)	36(25.2%)	25(17.5%)	2.63	1.03
Low speed of Internet services	30(21.0%)	44(30.8%)	33(23.1%)	36(25.2%)	2.48	1.09
Cost of access to electronic database	24(16.8%)	45(31.5%)	38(26.6%)	36(25.2%)	2.40	1.04
Frequent request to pay for online subscription	26(18.2%)	42(29.4%)	38(26.6%)	37(25.9%)	2.40	1.06
Lack of adequate time to search for information	23(16.1%)	42(29.4%)	38(26.6%)	40(28.0%)	2.34	1.05
Inability to get relevant materials	21(14.7%)	40(28.0%)	42(29.4%)	40(28.0%)	2.29	1.03
I face problems in locating the most appropriate electronic information resource	16(11.2%)	36(25.2%)	59(41.3%)	32(22.4%)	2.25	0.93
Lack of knowledge of search techniques to retrieve information effectively	16(11.2%)	25(17.5%)	59(41.3%)	43(30.1%)	2.10	0.96
Inability to access the Internet	19(13.3%)	32(22.4%)	35(24.5%)	57(39.9%)	2.09	1.07
Not being computer literate	12(8.4%)	28(19.6%)	44(30.8%)	59(41.3%)	1.95	0.97

**Source: Field survey, 2017**

The result in Table 4.6 shows the opinion of respondents on the challenges faced by librarians in usage of electronic information resources on research output in universities in Ekiti, Ondo and Osun States. The following results were obtained by using percentage scores indicated on Table 4.6: Lack of time due to library routine tasks: Strongly Agree (23.1%), Agree (34.3%), Disagree (25.2%) Strongly Disagree (17.5%). Low speed of internet services: Strongly Agree (21.0%), Agree (30.8%), Disagree (23.1%) Strongly Disagree (25.2%). Cost of access to electronic database: Strongly Agree (16.8%), Agree (31.5%), Disagree (26.6%) Strongly Disagree (25.2%). Frequent request to pay for online subscription: (18.2%), Agree (29.4%), Disagree (26.6%) Strongly Disagree (25.9%). Lack of adequate time to search for information: Strongly Agree (16.1%), Agree (29.4%), Disagree (26.6%) Strongly Disagree (28.0%). Inability to get relevant materials: Strongly Agree (14.7%), Agree (28.0%), Disagree (29.4%) Strongly Disagree (28.0%). I face problems in locating the most appropriate electronic information resource: Strongly Agree (11.2%), Agree (25.2%), and Disagree (41.3%) Strongly Disagree (22.4%). Lack of knowledge of search techniques to retrieve information effectively: Strongly Agree (11.2%), Agree (17.5%), Disagree (41.3%) Strongly Disagree (30.1%). Inability to access the Internet: Strongly Agree (13.3%), Agree (22.4%), Disagree (24.5%) Strongly Disagree (39.9%). Not being computer literate: Strongly Agree (8.4%), Agree (19.6%), Disagree (30.8%) Strongly Disagree (41.3%). Base on the result on the table it was revealed that librarians in Ekiti, Ondo and Osun States are faced with the challenges of lack of time due to library routine tasks given the mean score (2.63).

## Hypothesis 1

**H0<sub>1</sub>:** There is no significant correlation between accessibility of electronic information resources and research output of librarians in universities in Ekiti, Ondo and Osun States.

**Table 5: Correlation Analysis of Accessibility of Electronic Information Resources and Research Output of Librarians in Universities in Ekiti, Ondo and Osun States.**

Variables	Mean	Standard Deviation (SD)	N	R	P	Remark
EIR Accessibility	3.03	0.50	143	-0.13	0.117	Not Sig.
Research Output	1.02	1.86				

**Source: Field survey, 2017**

The Pearson Product Moment Correlation was used to ascertain if there is a relationship between accessibility of electronic information resources and research output of librarians in universities in Ekiti, Ondo and Osun States. The result in Table 4.7 shows that there is no significant relationship between electronic information resources accessibility and research output of librarians in universities in Ekiti, Ondo and Osun States ( $r = -.13, p > .05$ ). Statistically, the null hypothesis one was therefore accepted. The finding is line with Foster *et al.* (2008) who argued that inadequate access and use of electronic resources affects the publication outputs.

## Hypothesis 2

**H0<sub>2</sub>:** There is no significant correlation between the use of electronic information resources and research output of librarians in universities in Ekiti, Ondo and Osun States.

**Table 7: Correlation Analysis of Use of Electronic Information Resources and Research Output of Librarians in Universities in Ekiti, Ondo and Osun States.**

Variables	Mean	Standard Deviation (SD)	N	R	P	Remark
EIR Use	2.93	0.58	143	-0.05	0.561	Not Sig.
Research Output	1.02	1.86				

**Correlation is significant at 0.05**

**Sources: Field survey, 2017**

The Pearson Product Moment Correlation was used to ascertain if there is relationship between use of electronic information resources and research output of librarians in universities in Ekiti, Ondo and Osun States. Table 4.8 shows that there is no significant relationship between electronic information resources use and research output of librarians in universities in Ekiti, Ondo and Osun States ( $r = -.05, p > .05$ ). Statistically, the null hypothesis two was therefore accepted. The implication of this is that, if there is no use of electronic information resources, it will have negative influence on research output of librarians.

## Discussion of Findings:

The study investigated accessibility and use of electronic information resources as correlates of research output of librarians in universities in Ekiti, Ondo and Osun States. The findings of study are discussed as follows:

**Table 1,** Using a 4-point scale, the table is explained with the mean score obtained. It shows that all the electronic information resources are accessible in universities in Ekiti, Ondo and Osun States, given that a mean score greater than 2.5 was obtained for all the electronic information resources listed. The finding corroborates with Nwezeh (2010), reveals high level of accessibility and utilization ICTs particularly the Internet by the academic staff, as 73.9% of them made regular use of the Internet in their research activities.

**Table 2:** It shows that mostly all the electronic information resources are often utilised, given that a mean score greater than 2.5 was obtained for all the electronic information resources listed. . The finding corroborates Shelton (2011) on the use of ICT facilities by academic staff in the UK universities has shown that 87% of the respondents are using ICTs and e-resources in their academic and research activities. The finding also contradicts that of Oyedapo and Ojo (2013) in a study on the use of electronic information resources in Obafemi Awolowo University which observed very low usage of electronic resources. The major reason that contributed to low utilization of electronic resources was limited searching skills.

**Table 3:** reveals that research output of librarians in the study locale was high in some publications like Journal Articles (717), Book Chapters (478), Co-authored Textbooks (284) and Conference/Seminar/Workshop Papers (279). While the remaining publication record low research output. This finding is in agreement with the submission of Okiki (2013), who reveals that research productivity, was high in the publishing of journal articles, technical reports, conference papers, working papers, and occasional papers. On the other hand, their research output was lower in the publishing of textbooks, book chapters, monographs, and patents and certified inventions. Also Okpe, Simisaye and Otuza (2013) also reveal that research output within the studied period, journal articles top the list while conference and workshop papers followed respectively. While Okonedo et.al (2015) in their study, reveals that the level of librarians' research productivity is high within the period of 2009-2014, while ranking the publication efforts of librarians, it was discovered that articles in learned journals ranked high, followed by publication on chapters in textbooks. Librarians publish more in international journals than local journals. Librarians are motivated to publish mostly for promotion.

**Table 4:** the result agreed that librarians are faced with low speed of internet services and cost of access to electronic database it also reveals that majority of librarians are faced with time constraints. This study corroborates Moahi (2007) identifies lack of time and inadequate publications skills as part of the problem. Frequent request to pay for online subscription is a problem in their research output.

## **Conclusion**

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 Ekiti, Ondo and Osun States 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 and frequently used in the three states. 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 but use them for other purposes.

### Recommendations

1. Librarians in the study locale should make judicious use of electronic information resources that are available in their universities to conduct quality research which lead to research output.
2. Librarians' routine task should be minimize by the university management, so that they can have time to embark on research activities which will in turn boost universities research output.
3. There is need for librarians to collaborate with each other in order to make better use of these electronic information resources on their research work.

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