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# Use of Electronic Information Resources and Research Output by Academic Staff in Private Universities in Ogun State, Nigeria

Saturday U. Omeluzor[a],*; Ezinwayi Madukoma[a]; Itunu Bamidele[a]; Susan U. Ogbuiyi[a]

[a] Babcock University Library, Ilishan-Remo, Ogun State, Nigeria.
*Corresponding Author.

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## Abstract

The study examined the use of electronic information resources and research output by academic staff in private universities in Ogun state, Nigeria. Three private universities were selected out of the nine private universities in Ogun state. These universities are Crescent University, Abeokuta, Babcock University, Ilishan-Remo, and Redeemers' University, Mowe, all in Ogun State, Nigeria. Purposive sampling method was used to investigate respondents. The instrument used for data collection was structured questionnaire. 225 copies of the questionnaire were administered at Babcock University and 144 were retrieved. 88 at Crescent University and 80 were retrieved, while 215 at the Redeemers' University and 130 were retrieved. The research looked at the extent with which electronic information resources were used in the private universities in Ogun State, using the three universities as sample. A total of 528 copies of the questionnaire were distributed to the respondents at the three universities and a valid number of 354 (66%) questionnaires were retrieved and analyzed. The questionnaire was designed using nominal and likert scales. The study revealed that most of the academic staff from the three private universities knew and used electronic information resources for their research work as shown on Tables 5, 6, 7 and 8. Findings from Tables 8 and 9 indicate that most of respondents from the three private universities have published their articles and presented papers with the use of electronic information resources. The study also revealed on Table 6 that effective use of electronic information resources contribute to the academics' research output hence 329 (92.9%) of the total respondents supported that view. It is imperative to state here that lack of personal computer and erratic power supply among others are major constraints that inhibit use of electronic information resources in the three private universities which invariably affects their research output. The researchers recommended that private universities in Nigeria expedite action in the area of improving access to electronic information resources through provision of subsidized computers and improved electricity supply in their various universities. Moreso, academic staff are advised to acquire computer skills, learn and relearn to navigate and utilize the vast available electronic information resources on the internet to achieve better research output.

**Key words:** Electronic information resources; Research output; Academics; Information access; Information skill; ICT; Electronic journal; Private university; Ogun state

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## INTRODUCTION

Electronic information resources (EIRs) have evolved over the years. Lancaster (1995) affirmed that the use of computers to generate conventional print-on-paper publications can be traced back to the early 1960s, when production of *Index Medicus* at the National Library Medicine started. According to Feather and Sturges (2003) electronic information resources have their origin in experimental computer systems developed for the storage and retrieval of bibliographic data during the 1960s. Before the advent of electronic information resources, print materials dominated every means of information

sources. This era witnessed an exponential improvement on the availability, accessibility and use of EIRs in most countries of the world. Grillion (1994) asserted that information is a resource on its own, as well as an asset to others. This is because the use of information can improve work performance, enhance planning, increase output and support decision making. Though researches have shown that access to EIRs are sometimes not easily to come by due to some challenges. However, access and use of information contributes to research productivity and recognition. This paper therefore looks at the use of EIRs and its impact on research output of academics in private universities in Ogun State, Nigeria.

## 1. STATEMENT OF THE PROBLEM

Globally, the academic community has embraced the use of electronic information resources as major sources of scholarly information for teaching, learning and research. The capacity to access these resources and the intensity to which they are being used vary from one environment to the other. In Nigeria, access and use of these resources are not unaffected by a number of constraints or challenges all of which impact in one way or the other on the quality of teaching, learning and research in the country. A number of questions therefore seek for answers and these include: To what extent are these resources being used in the Nigeria academic community? What impact has the resources made on the users? What factors inhibit the use of the resources? How can the constraints be addressed? This study therefore seeks to address these questions.

### 1.1 Objectives of the Study

This study seeks to analyze the use of electronic information resources by academic staff in private universities in Nigeria. Specific objectives of the study are to:

1. Discuss the extent to which academic staff use electronic information resources in the conduct of their research in the context of their ICT competence level;
2. To determine the level of awareness by the users of e-information resources;
3. Analyze the level of use of electronic information resources by academic staff;
4. To enumerate the factors inhibiting the use of the electronic information resources in Nigerian academic environment;
5. Find out means to address the challenges inhibiting the use of electronic information resources in Nigerian academic institutions.

### 1.2 Research Questions

To ensure that the researchers were guided appropriately in ascertaining the required results, this research tend to answer the following questions

1. Do the academic staff have ICT knowledge and skill to use electronic information resources?
2. What is the level of the academic staff awareness about electronic information resources?
3. To what extent are the electronic information resources being used by academic staff in the Nigeria academic community?
4. What are the constraints inhibiting the use of the e-information resources?
5. How can the constraints inhibiting the use of electronic information resources in the Nigerian universities be addressed?

## 2. LITERATURE REVIEW

### 2.1 Electronic Information Resources: An Overview

This era is witnessing a drastic change in the use of electronic information resources (EIRs). It was observed by Okiki and Asiru (2011) that one of the strongest factors that influence the use of electronic information resources is the need to carry out research. Agba, Kigongo-Bukenya, and Nyumba (2004) argued that the shift from print to electronic information means that both academic staff and students in a university system must use these resources for better quality, efficient, and effective research more than ever. However, despite the inherent benefits, Igbo and Imo (2010) identified lack of electronic information resources and irregularity in subscription to electronic journals as some of the factors inhibiting accessibility to electronic information resources. But according to Omotayo (2010), a major issue that constrains users is awareness of electronic information resources. He however argued that e-journals are becoming popular amongst academics in developing countries and that awareness is not necessarily a proof of use. It is therefore clear that academics' use of electronic information resources to surmount the challenges that abound in meeting their target cannot be overemphasized.

### 2.2 Information Skill

In order to utilize the vast information on the Internet and the growing amount of electronic information resources, teachers and students alike need to practice the skills necessary to exploit them. Ray and Day (1998) citing Dutton (1990) clarifies that the skills required to maximize the potential of electronic information resources are much greater than those required for searching printed sources. Such skills are knowledge of the structure of the database and the instructions which must be inputted into the computer by the searcher, as well as an understanding of the ways in which the instructions are linked with one another. Also, it is important for researchers to learn how to use search terms and Boolean operators to enhance their search results.

### 2.3 Information Access

Information that is available but not accessible to users is of no value. According to Okoye and Ejikeme (2011), removing access barriers will accelerate research, enrich education and share learning; since there is a critical need to make research results available to as many academics and elite class as possible free of charge. Wikipedia (2011) opines that the objective of the various research efforts in information access is to simplify information for human users to access and further process large and unwieldy amounts of data and information. Inadequacy of current and relevant information for teaching, learning and research has been the bane of university education in Nigeria (Anyira, 2011). The clarion call by some well meaning individuals and organizations to make electronic information resources accessible through open access is indeed a welcome development.

### 2.4 Research Productivity (Output)

The key to the survival of any nation's economy is research output because of its importance for planning, management and distribution of scarce resources. It is used to measure the academics' prowess in any university world over. According to Popoola (2008) research output is one of the critical factors used in determining productivity; both local and international recognition and respect are partly determined by published works. Academic institutions all over the world expect her academic staff to be aggressive in research to meet minimum requirements by accrediting bodies. Cetto (1998) stated that one of the index for measuring research output is the number and quality of published works. Okafor and Dike (2010) citing Ochai and Nedosa (1998) observed that in universities the world over, recognition and advancement of academic staff rest largely on the quantity and quality of their research outputs. According to Chiemeke, Longe and Shaib (2009), a gradual decline in research output in higher education became noticeable in the late 1980s. Chiemeke *et al.* (2009) citing Karani (1997) observed that the National Universities Commission (NUC) declared that in terms of quality and quantity, the research output of tertiary institutions in Nigeria was about the best in Sub-Saharan Africa up to the late 1980s. They upheld good research training and motivation, availability of equipment, and good library facilities as foundations for good research outputs.

### 2.5 Research Methods

This study adopted a survey design. A purposive sampling method was used to select the sample size. There are six private universities in Ogun State, Nigeria. (http://www.nuc.edu.ng/pages/universities.asp?ty=3&order=inst_name). The instrument used for data collection was structured questionnaire. A total of 528 questionnaires were generally distributed to the respondents at the three universities used for this study with 225 questionnaires administered at Babcock University and 144 were retrieved. 215 were distributed at the Redeemers' University and 130 were retrieved. At Crescent University, 88 were distributed and 80 were retrieved. A total of 354 copies of the instrument were retrieved, which give a response rate of 67%.

**Table 1**
**Number of Academic Staff in Each of the Universities and the Number of Respondents Sampled**

| University | No. of academic staff | No. of respondents samples |
|---|---|---|
| Babcock University | 225 | 225 |
| Crescent University | 88 | 88 |
| Redeemers' University | 215 | 215 |
| Total | 528 | 528 |

Source: Website and Academic Bulletin

**Table 2**
**Number of Departments and Number of Courses Offered in the Universities**

| University | Department | Courses |
|---|---|---|
| Babcock University | 18 | 33 |
| Crescent University | 12 | 14 |
| Redeemers' University | Not supplied | 27 |

*Note:* Redeemer's University operates the collegiate system. The departments and courses of studies which all activities of teaching, learning and research are structured under various colleges. The three (3) colleges presently offer four years Bachelor Degree Programmes in College of Humanities, College of Management Science and College of Natural Sciences (http://www.run.edu.ng/Colleges.html).

## 3. RESULT OF FINDINGS AND ANALYSIS

**Table 3**
**Number of Respondents**

| Universities | No. of academic staff | No. of questionnaires administered | No. of questionnaires retrieved | Percentage of questionnaires retrieved |
|---|---|---|---|---|
| Babcock | 225 | 225 | 144 | 64 |
| Crescent | 88 | 88 | 80 | 91 |
| Redeemer | 215 | 215 | 130 | 61 |
| Total | 528 | 528 | 354 | 67 |

Table 3 shows that Babcock University has the highest number of academic staff among the three universities in this study with 225, followed by Redeemers' with 215 and Crescent with 88. The questionnaires were administered on all the academic staff from the various universities under study. A total of 144 (64%) were retrieved from Babcock University, 80 (91%) were retrieved from Crescent University, while 130 (61%) were retrieved from Redeemer's University. Out of the 528 questionnaires that were administered, a total sum of 354 (67%) were retrieved from the three Universities and analyzed.

**Table 4**
**Type of ICT Facility Used by the Academic Staff**

| ICT facility | Babcock | % | Crescent | % | Redeemer's | % |
|---|---|---|---|---|---|---|
| Computer | 135 | 93.8 | 74 | 84 | 120 | 92.3 |
| Internet | 140 | 97.2 | 81 | 92 | 123 | 94.6 |
| Scanner | 90 | 62.5 | 55 | 62.5 | 82 | 63.1 |
| Printer | 100 | 69.4 | 67 | 76 | 92 | 70.8 |
| Projector | 75 | 52.1 | 50 | 56.8 | 70 | 53.8 |
| Digital camera | 95 | 66 | 64 | 72.7 | 97 | 74.6 |
| Telephone | 144 | 100 | 80 | 90.9 | 130 | 100 |
| Ipad | 80 | 55.6 | 45 | 51 | 78 | 60 |

Table 4 indicates that 135 (93.8%), 74 (92.5%) and 120 (92.3%) from Babcock, Crescent and Redeemer's university respectively used computer. It also shows that 140 (97.2%), 81 (92%) and 123 (94.6%) of the respondents from Babcock, Crescent and Redeemer's university respectively have access to internet. A total of (100%) of the respondents from each of the university used telephone effectively. It is evident that most of the respondents used scanner, printer, projector, digital camera and Ipad to gather information. This result shows that most of the academic staff from the three private universities have ICT knowledge and skill and have also used ICT facilities to access and retrieve electronic information resources.

**Table 5**
**Level of Academic Staff Awareness of Available Electronic Information Resources**

| Item | Babcock | Crescent | Redeemer's |
|---|---|---|---|
| e-database | 138(95.8%) | 72(90%) | 123(94.6%) |
| e-journals | 124(86%) | 75 (93.8%) | 114(87.7%) |
| e-book | 121(84%) | 69(86.3%) | 106(81.5%) |
| CD ROM Search | 85(59%) | 43(53.8%) | 71(54.6%) |
| Repository | 74(51.4%) | 45(56.3%) | 79(60.8%) |
| OPAC | 82 (56.9%) | 50 (62.5%) | 89 (68.5%) |

Table 5 shows that the academic staff were aware hence they accessed electronic information resources available in their various universities. The result also shows that 138 (95.8%), 72 (90%) and 123 (94.6%) from Babcock, Crescent and Redeemer's universities respectively accessed e-database, e-journals and e-books more frequently. It also proved that 124 (86%), 75 (93.8%) and 114 (87.7%) of the respondents accessed e-journals, while 74 (51.4%), 45 (56.3%) and 79 (60.8%) of the respondents used repository to access information. OPAC use for information access was also significant as shown, hence 82 (56.9%), 50 (62.5%), and 89 (68.5%) of the respondents from Babcock, Crescent and Redeemer's university respectively agreed to that. This result is in agreement with Okiki and Asiru (2011) that one of the strongest factors that influenced the use of electronic information resources is the need to carry out a research.

**Table 6**
**The Extent to Which the Use of Electronic Information Resources Improved the Respondents' Research Output**

| University | Yes | No | Total |
|---|---|---|---|
| Babcock | 134(93.1%) | 10(6.9%) | 144(100%) |
| Crescent | 74(92.5%) | 6(7.5%) | 80(100%) |
| Redeemer | 121(93.1%) | 9(6.9%) | 130(100%) |
| Combined | 329(92.9%) | 25(7.1%) | 354(100%) |

Table 6 shows that 134 (93.1%), 74 (92.5%), and 121 (93.1%), of the total respondents from Babcock, Crescent and Redeemer's universities agreed that use of e-information resources improved their research output.

**Table 7**
**Respondents' Lecture Notes Preparation**

| University | Often | Not often | Not at all | Total |
|---|---|---|---|---|
| Babcock | 126(87.5%) | 9(6.2%) | 9(6.2%) | 144(100%) |
| Crescent | 68(85%) | 5(6.2%) | 7(8.8%) | 80(100%) |
| Redeemer | 111(85.3%) | 9(6.9%) | 10(7.7%) | 130(100%) |

Table 7 shows that 126 (87.5%) of the total respondents from Babcock University, 68 (85%) from Crescent University and 111 (85.3%) from Redeemer's University often consulted electronic information resources to prepare their lecture notes. 9 (6.2%), 7 (8.85) and 10 (7.7%) from Babcock, Crescent and Redeemer's universities respectively have never prepared lecture notes with the use of electronic information resources. This may be caused by lack of awareness or skill to use the resources. The result proved that beyond researching for publication, the academics in the various universities accessed electronic information resources to prepare lecture notes for their students.

**Table 8**
**Articles Published with the Use of Electronic Information Resources**

| University | None | 1-3 | 4-6 | 7-9 | 10 and above | Total |
|---|---|---|---|---|---|---|
| Babcock | 63(43.8%) | 28(19.4%) | 29(20.1%) | 2(1.4%) | 22(15.3%) | 144(100%) |
| Crescent | 32(40%) | 17(21.2%) | 18(22.6%) | 1(1.2%) | 12(15%) | 80(100%) |
| Redeemer | 53(40.8%) | 28(21.5%) | 29(22.3%) | 2(1.5%) | 18(13.8%) | 130(100%) |

Table 8 indicates that 22 (15.3%), 12 (15%) and 18 (13.8%) of the total respondents from Babcock, Crescent and Redeemer's University respectively have published ten articles and above with the use of EIRs. The table also shows that 63 (43.8%) of the total respondents from Babcock university, 32 (40%) of the total respondents from Crescent University and 53 (40.8%) of the total respondent from Redeemer's university have not publish any article with the use of EIRs. This result shows that, though, all the respondents agreed to have used EIRs as shown on Table 5 and 6, it did not positively affect the research output of some of the respondents in the area of publication.

**Table 9**
**Papers Presented with the Aid of Electronic Information Resources**

| University | None | 1 | 2 | 3 | Above 3 | Total |
|---|---|---|---|---|---|---|
| Babcock | 55 (38.2%) | 18 (12.5%) | 21 (14.6%) | 12 (6.9%) | 38 (26.4%) | 144 (100%) |
| Crescent | 29 (36.2%) | 9 (11.2%) | 13 (16.2%) | 7 (8.8%) | 22 (27.5%) | 80 (100%) |
| Redeemer | 46 (35.4%) | 15 (11.5%) | 21 (16.2%) | 12 (9.2%) | 36 (27.7%) | 130 (100%) |

Table 9 shows that most of the respondents have presented 3 papers or more with the aid of electronic information resources, this is evident as 38 (26.4%) from Babcock University, 22 (27.5%) from Crescent University and 36 (27.7%) of the total respondents from Redeemer's University agreed to. However, the table also shows that 55 (38.2%), 29 (36.2%) and 46 (35.4%) of the total respondents from Babcock, Crescent and Redeemer's university respectively indicated not to have presented any paper with the aid of electronic information resources. The result shows that some of the respondents have presented either 1, 2 and 3 papers with the aid of EIRs. This result proved that while some of the respondents have used the rich contents of electronic information resources to support their research output, most of them have not utilized it to enhance their paper presentations.

**Table 10**
**Challenges Faced by the Respondents to Access Electronic Information Resources**

| Challenges | University | Yes | No | Total | Ranking |
|---|---|---|---|---|---|
| Lack of personal computer | Babcock | 91(63.2%) | 53(36.8%) | 144(100%) | 1st |
| | Crescent | 50(62.5%) | 30(37.5%) | 80(100%) | |
| | Redeemer | 80(61.5%) | 50(38.5%) | 130(100%) | |
| Unstable power supply | Babcock | 67(46.5%) | 77(53.5%) | 144(100%) | 2nd |
| | Crescent | 39(48.8%) | 41(51.2%) | 80(100%) | |
| | Redeemer | 62(47.7%) | 68(52.3%) | 130(100%) | |
| Non-payment of subscriptions | Babcock | 65(45.1%) | 79(53.5%) | 144(100%) | 3rd |
| | Crescent | 38(47.5%) | 42(52.5%) | 80(100%) | |
| | Redeemer | 59(46.4%) | 71(54.6%) | 130(100%) | |
| Strict administrative policies | Babcock | 36(25%) | 108(75%) | 144(100%) | 4th |
| | Crescent | 21(26.2%) | 59(73.8%) | 80(100%) | |
| | Redeemer | 33(25.4%) | 97(74.6%) | 130(100%) | |
| Non-payment of research allowance | Babcock | 31(21.5%) | 113(78.5%) | 144(100%) | 5th |
| | Crescent | 18(22.5%) | 62(77.5%) | 80(100%) | |
| | Redeemer | 29(22.3%) | 101(77.7%) | 130(100%) | |
| Incoherent e-information resources interface | Babcock | 29(20.1%) | 115(79.9%) | 144(100%) | 6th |
| | Crescent | 16(20%) | 64(80%) | 80(100%) | |
| | Redeemer | 26(20%) | 104(80%) | 130(100%) | |
| Lack of Internet connection | Babcock | 25(17.4%) | 119(82.6%) | 144(100%) | 7th |
| | Crescent | 14(17.5%) | 66(82.5%) | 80(100%) | |
| | Redeemer | 23(17.7%) | 107(82.3%) | 130(100%) | |
| Shrink bandwidth to download resources | Babcock | 22(15.3%) | 122(84.7%) | 144(100%) | 8th |
| | Crescent | 34(42.5%) | 46(57.5%) | 80(100%) | |
| | Redeemer | 41(31.5%) | 89(68.5%) | 130(100%) | |
| Lack of computer skill and knowledge | Babcock | 19(13.2%) | 125(86.8%) | 144(100%) | 9th |
| | Crescent | 11(13.8%) | 69(86.2%) | 80(100%) | |
| | Redeemer | 18(13.8%) | 112(86.2%) | 130(100%) | |

Table 10 indicates lack of personal computer among the respondents and unstable power supply as the major challenges inhibiting the academics' access to EIRs in the universities under study. From the table, 91(63.2%), 80(61.5%) and 50(62.5%) of the total respondents from Babcock, Crescent, and Redeemer's university respectively agreed that lack of personal computer was a great challenge to their access to electronic information resources. Also, 67(46.5%), 62(47.7%) and 39(48.8%) of the total respondents from Babcock, Redeemer's and Crescent university respectively attested that unstable power supply was another challenge. Lack of computer knowledge and skill ranked 9th on the table. This means that the respondents in the various universities have computer knowledge and skills to navigate through the computer in order to get needed results in their research areas. The table also revealed that renewal of subscriptions, administrative policies, payment of research allowances, EIRs interfaces, internet connection and bandwidth were not challenges inhibiting access to electronic information resources as affirmed by the respondents.

## 4. DISCUSSION OF FINDINDS

Findings on Table 4 shows that the respondents in the three universities used ICT tools hence they have ICT knowledge and skills to access electronic information resources in order to carryout their researches. The result supports Okiki and Asiru (2011) claim that one of the strongest factors that influence the use of electronic information resources is the need to carry out a research and nullifies the claim of Fabunmi (2009) that most researchers are faced with difficulty to search due to lack of adequate knowledge. Furthermore, Table 5 also proved that the respondents accessed electronic databases, electronic journals, electronic books, CD ROM search, repository and OPAC to support their researches.

Findings on Table 6 shows that use of electronic information resources improved the research output of the respondents as indicated by 134 (93.1%), 74 (92.55) and 121 (93.1%) of the total respondents from Babcock, Crescent and Redeemer's university respectively. It is evident from Table 7 that the respondents agreed to have accessed electronic information resources to prepare lecture notes for their students. This was clear as 126 (87.5%) from Babcock University, 68 (85%) from Crescent University and 111 (85.3%) from Redeemer's University of the total respondents agreed to have often done so.

Findings on Tables 8 and 9 shows that most of the academics have used the electronic information resources to publish articles and present papers. This corroborates the findings of Montanelli and Stenstrom (1986) that publication promotes advancement and recognition for librarians. However, the result was not favourable as the number of respondents that have published articles with the use of electronic information resources were less than 50% of the total respondents in each of the universities. The result shows a gap between their usage of electronic information resources and their research output.

From Table 10, it is clear that among the numerous challenges that militate against the academics' access to electronic information resources, lack of personal computer and irregular power supply were the most prevalent. This implies that few of the challenges mentioned in this research were still a bane. From the table, 91 (63.2%), 80 (61.5%) and 50 (62.5%) of the total respondents from Babcock, Crescent and Redeemer's university respectively agreed that lack of personal computer was a great challenge. Also, 67 (46.5%), 62 (47.7%) and 39 (48.8%) of the total respondents from Babcock, Crescent and Redeemer's university respectively attested that erratic power supply was another major challenge.

It also shows that computer knowledge, internet connection among others were not a problem in the private universities. This means that the academics in the various universities have computer knowledge, access to EIRs and skills to manipulate the computer in order to get needed research results. The result therefore nullifies the claim of Igbo and Imo (2010) that irregularity in subscription to electronic journals was one of the factors inhibiting accessibility to electronic information resources.

This research identified some factors that inhibit access to electronic information resources, and to address those constraints are the following suggestions.

1. Provision of uninterrupted power supply,
2. Provision of subsidized computer systems for the academics, and
3. Improved communication of new knowledge and ideas amongst the academics.

## CONCLUSION

The following conclusion or implications may be drawn from the study. They are based on the research findings:

Access to electronic information resources did not necessary turn into research output without the researcher utilizing the information to contribute to the body of knowledge. The need to access electronic information resources in the universities is very important as this will enhance breakthrough in research findings. Research outputs of the academics greatly depend on available and accessible information at their disposal. This therefore suggests that universities must allocate a certain percentage of their annual budget to providing access to electronic information resources. For results to be achieved in any sector, be it education, medical, agriculture, economics amongst others, access to information both in print and electronic format have to be prioritize by the university academics.

The responsibility of the academics goes beyond teaching in the classroom, but to research and publish articles that will support the growth of the economy. The world expects the academics to come up with solutions to present and impending challenges through their research. Therefore, efforts should be geared toward realizing access to electronic information resources so that it can be used maximally to achieve better research outputs.

## RECOMMENDATIONS

In view of the above findings, the researchers recommend as follows:

i) The academics should be encouraged to use electronic information resources to prepare papers for presentations. Moreover, there is need for the academics to improve their research output through constant use of electronic information resources. This will justify the efforts of various private universities in Nigeria towards ensuring availability and accessibility to those resources.

ii) The academics should learn and relearn various techniques to search electronic information resources to arrive at needed results. Information professionals should re-educate the academics on the use of Boolean operators for their online information search as well as other limiters for fruitful search results.

iii) There should be proper awareness and encouragement for the academic staff to use available electronic information resources for research and publication of their articles.

iv) The academics should enhance communication of information, ideas and new knowledge amongst themselves to ensure collaboration, while libraries should maintain regular subscription to online journals and databases.

v) Lack of personal computer and erratic power supply were also identified as some of the major constraints hindering access to electronic information resources by the respondents; therefore, the university administrators are advised to create avenue for the academics to acquire personal computers through a subsidized means to enhance their research output, as well as to improve electricity supply.

## REFERENCES

Agba, D. M., Kigongo-Bukenya, I. M. N., & Nyumba, J. B. (2004). Utilization of Electronic Information Resources by Academic Staff at Makerere University. *University of Dares Salaam Library Journal, 6*(1), 18-29.

Anyira, I. E. (2011). *Internet Services in Nigerian Private Universities: A Case Study*. Retrieved from http://unllib.unl.edu/LPP/anyira.htm

Babcock University 2009-2011 Undergraduate Bulletin. p.1-2.

Chiemeke, S., Longe, O. B., Longe, F. A., & Shaib I. O. (2009). *Research Outputs from Nigerian Tertiary Institutions: An Empirical Appraisal*. Retrieved from http://www.thefreelibrary.com/Research+outputs+from+Nigerian+tertiary+institutions%3a+an+empirical...-a0197598580

Fabunmi, B. A. (2009). Challenges and Prospects of Virtual Libraries in Universities in Nigeria**.** *European Journal of Scientific Research*. Retrieved from http://www.eurojournals.com/ejsr/33/1/17.pdf

Feather, J., & Sturges, P. (2003). *International Encyclopedia of Information and Library Science* (2nd ed.). Routledge Publishers, U.S.A.

Grillion, J. (1994). *Information as a Resource: An overview of the Characteristics of Information as a Resource in the Information Age*. Retrieved from http://capita.wustl.edu/me567_informatics/concepts/infores.html

Igbo, U. H., & Imo, N. T. (2010). Challenges of Accessibility of Information Resources by the Post Graduate Library Users of a Nigeria University. *An International Journal of Information and Communication Technology (ICT), 7*(2), 1-10.

Lancaster, F. W. (1995). *The Evolution of Electronic Publishing*. Retrieved from http://www.ideals.illinois.edu/bitstream/handle/2142/7981/librarytrendsv43i4c_opt.pdf?sequence=1

Montanelli, D. S., & Stenstrom, P. F. (1986). The Benefits of Research for Academic Librarians and the Institution They Serve. *College and Research Libraries, 47*, 482-485.

Okafor, V. N., & Dike, V. W. (2010). *Research Output of Academics in the Science and Engineering Faculties of Federal Universities in Southern Nigeria*. Retrieved from http://findarticles.com/p/articles/mi_7002/is_1_20/ai_n54035025/

Okiki, O. C., & Asiru, S. M. (2011). *Use of Electronic Information Sources by Postgraduate Students in Nigeria: Influencing Factors*. Retrieved from http://unllib.unl.edu/LPP/okiki-asiru.htm

Okoye, M. O., & Ejikeme, A. N. (2011). *Open Access, Institutional Repositories, and Scholarly Publishing: The Role of Librarian in South Eastern Nigeria***.** Retrieved from http://unllib.unl.edu/LPP/okoye-ejikeme.htm

Omeluzor, S. U. (2010). *User Education and Use of Library at Babcock University***.** Retrieved from http://www.thefreelibrary.com/User+Education+and+Use+of+Library+at+Babcock+University%2c+Nigeria-a01074126355

Popoola, S. O. (2008). *The Use of Information Sources and Services and Its Effect on the Research Output of Social Scientists in Nigerian Universities*. Retrieved from http://www.thefreelibrary.com/Research+outputs+from+Nigerian+tertiary+institutions%3a+an+empirical...-a0197598580

Ray, K., & Day, J. (1998). *Student Attitudes Towards Electronic Information Resources*. Retrieved from http://informationr.net/ir/4-2/paper54.html

Wikipedia.com (2011). *Information Access***.** Retrieved from http://en.wikipedia.org/wiki/Information_access