Institutional Repositories Utilization by Lecturers in Federal Universities in Nigeria Universities

By

Lazarus, Gift. N.* Department of and Information Science Library, Lagos State University of Education, Oto/Ijanikin, Lagos nnekalazarus@gmail.com

and

Ogunbote Kehinde. O. <u>Abraham Adesanya Polytechnic, Ijebu Igbo, Ogun State</u> <u>kehindeogunbote1@gmail.com</u>

Abstract

This study investigated the utilization of institutional repositories by lecturers in federal universities in Nigeria. The survey research design was adopted for the study and questionnaire adopted as the instrument of data collection. The sample size of 724 respondents for the study was determined using the multi-stage sampling procedure. Findings from the study revealed photographs, notebooks, seminar papers, inaugural lectures and illustrations and drawings as the most common types of information resources in the institutional repositories of federal universities in Nigeria. The major purposes for which lecturers in federal universities in Nigeria use institutional repositories are preparation of seminar/lecture notes, writing papers/proposals, seminars presentations, and research works which revolve around teaching and research as the core mandate of the lecturers. The frequency of use of the institutional repositories established weekly use of book chapters and occasional use of other resources in the institutional repositories by lecturers of the federal universities surveyed. Findings from the study further established the prevalence of occasional use of institutional repositories by lecturers in federal universities in Nigeria. The study recommended formulation and implementation of adequate university-wide policy that would encourage and support the use of institutional repositories by the lecturers as well as organisation of regular training and retraining programme on the effective use of institutional repositories.

Keywords: Federal Universities, Institutional repositories, Lecturers, Nigeria, Utilization

Introduction

Institutional repositories (IRs), according to Lych, in Bamigbola, (2018) is an archive for the collection of intellectual outputs of an institution, recorded in a form that can be preserved,

exploited and disseminated in a digital form. University libraries have overtime been involved in establishing institutional repositories to acquire, process, store, preserve and disseminate intellectual outputs of lecturers in digital forms to community members and the global community. It is usually an electronic store of web-based scholarly digital documents of theses, journals, books and conference papers owned by the institutions; hence it can be referred to as an extension of digital library which has now become a platform for sharing of knowledge (Bamigbola, 2018). The main objective of establishing institutional repositories is to showcase institutional research output to the outside world and can be regarded as a service that university renders to its community members for the stewardship of scholarly publication generated by the faculty, staff, and research scholars which create global visibility for an institution's scholarly research, and also stores and preserves other institutional digital assets, including unpublished literature for long term use. Institutional repositories have therefore witnessed a paradigm shift in scholarly communication that increases the visibility and add more prestige to the institutions.

According to Leila and Mina (2018), the benefits of IRs can be summarized in two categories which are open access to scholarly publications and long-term preservation of the scholarly content. Consequently, institutional repositories provide tools that assist lecturers in disseminating their works to audiences within and outside the institution. It enables information seekers to find faculty and students work more easily by organising and indexing it, making it more visible to colleagues. The content of institutional repositories varies from one institution to the other. Some may include monographs, pre-prints of academic journal articles as well as electronic theses and dissertations, datasets, administrative documents, course notes, learning objects and conference proceedings. The federal universities which are the focus of this study have common features which also help storage content of institutional repositories and use by lecturers in these universities. Bamigbola (2017) revealed that content storage and utilization are mainly for research and administrative purposes. A preliminary survey by this researcher shows that contents available in the repositories of Nigerian universities cut across many fields and include faculty lectures, inaugural lectures, guest lectures series, seminar papers, encyclopedia and dictionary, newspapers, newsletters, journals, theses and dissertations, conference proceedings, textbooks, book of abstract, bulletins, posters, realia, maps, photographs, models, banners, charts, illustrations and drawings, notebooks, patents and book chapters.

Genoni, Merrick and Wilson (2014) submitted that there is a growing appreciation that the content of institutional repositories needs to be more diverse than is appropriate for subject-based repositories, and that they should unite both formal and informal scholarly communication in a single archive. The policy guiding the use of institutional repositories is supposed to state clearly the rule for copyright ownership and licenses both in depository and accessing the content of the institutional repositories, including decision on issues such as how scholarly articles by academics, student project works, theses and dissertations, newsletters, inaugural lectures from the university are to be uploaded into the system. Research have shown that these are lacking in developing countries around the world.

Adeyemi, Appah, Akinlade and Bribena (2017) stated that the existing institutional repositories in Nigeria have no policy that guides their operation. Such policy document which should cover such matters as what to accept or not to accept, copyright issues, self or mediated archiving, submission and withdrawal policies, types of material to accept and any other issue necessary to govern the operation of the institutional repositories for implementation. Study by Ezema and Okafor (2015) also shows that exclusive right to protect an author, composer or artist from having his work recorded, performed, displayed, translated, distributed or reproduced by way of copies, photocards, or other versions is not done except with express permission to promote use of institutional repositories not only in developing countries but Nigeria in particular.

Moreover, Alhija and Majdob (2017 and Aina and Adekanye (2013) averred that lack of relevant and adequate skills on the part of some lecturers to gaining access to the intellectual output contents of other lecturers and researchers in terms of print and non-print materials, through institutional repositories, could also undermine the productivity of the lecturers. The use of institutional repositories in the contemporary world requires that lecturers must be proficient in digital literacy, media literacy skill and have ICT competency among others, to determine the level of their performance in all their areas of academic and research activities. Institutional repositories assist scholars to be aware of the state of the existing knowledge and have access to information which will help them to build up their own theories and findings in order to provide meaningful research to take place.

Dutta and Paul (2014) submitted that although lecturers have low awareness of the institutional repositories, they have more or less positive attitude towards and interested in contributing their work in the institutional repositories of the university. However, confusion about copyright issues discourages them to participate in it. It has been emphasized that for an institutional repository to successfully serve its full potential, the lecturers should not only be aware of its existence but understands its value, and willing to contribute their scholarship. Empirical evidence, Observations by scholars such as Bamigbola (2018) and Adu, 2018 pointed to factors such as functionality of institutional repositories with relevant indigenous and local contents (resources), accessibility to and use of institutional repositories as well as infrastructural facilities as having the tendency to influence research productivity of lecturers in federal universities in Nigeria.

It suffices to say that since the other factors investigated earlier in relation to research productivity have not yielded the desired positive results, it is imperative that there is need to investigate the other factors too. There is also evidence of low use of institutional repositories where there are functional institutional repositories. Studies such as Unocha and Mabawonku (2014) affirmed that institutional repositories could have a positive influence on research productivity because it is widely known and used in many countries around the globe but there is no evidence that institutional repositories are widely used in Nigeria. It is on this basis that this study intends to examine the use of institutional repositories by lecturers in Nigerian federal universities.

Objectives of the study

The specific objectives of this study are to:

- identify the types of information resources available in the institutional repositories of federal universities in Nigeria;
- establish the purpose of use of institutional repositories by lecturers in federal universities in Nigeria;
- 3. ascertain the frequency of use of institutional repositories by lecturers in federal universities in Nigeria; and

Research questions

The following research questions were answered in the study:

- 1. What are the types of information resources available in the institutional repositories of federal universities in Nigeria?
- 2. For what purposes do lecturers in federal universities in Nigeria use institutional repositories?
- 3. What is the frequency of use of institutional repositories by lecturers in federal universities in Nigeria?

Literature Review

Institutional repositories are considered as important for universities in helping to manage and capture intellectual assets as a part of their information strategies and makes research freely and broadly available to a worldwide audience (open access) with the use of technology and metadata standards to ensure research works are more suitable on the internet and the libraries take care to archive and preserve it for future generation. Consequently, it can be deduced that institutional repositories are highly germane to measuring lecturer's research productivity in terms of teaching efficiency, research output or publication and community service in universities. The contents, purpose and frequency are major parameters for measuring the use of institutional repositories.

The deployment of institutional repositories (IRs) in libraries and organisations is an international phenomenon since they are considered as major components of information technologies infrastructure that assist libraries and organisation to provide information resources for teaching, learning and research work. It is an ideal vehicle for making research outputs visible within and outside the institutions. This new form of scholarly communication is achieved through two main channels which include the open access publications and institutional repositories. The development of institutional repositories in higher institutions was made possible by Open Access Initiatives (OAI) which sought to make available research outputs by encouraging researchers to deposit their scholarly work into their university institutional repositories.

Given the vision and the potential, it is surprising and disappointing that institutional repositories collections have generally grown more slowly than proponents had anticipated. The

phenomenon is worldwide. Also typically communicated through these activities are the benefits of depositing in institutional repositories for faculty members (Barton, Mark and Shearer, 2006). In other words, the information professionals and the host institutions should play a very vital role in attracting and creating awareness of researchers toward the potentials of institutional repositories for the research community to make it usable in addition to those authors who are accustomed with it.

Mark and shearer (2006) cited a number of reasons why lecturers' utilization of institutional repositories rates is low in most developing countries. According to them, at the most basic level, faculty members lack awareness of the existence of institutional repositories. Other surveys have found that many academic authors are not familiar with the concept of any institutional repositories on campus (Swan and Brown, 2004; Swan and Brown, 2005). Christian (2008) noted that lack of knowledge or awareness of institutional repositories is not peculiar with researchers. In fact, this is the situation in most developing countries institutions. However, Dulle (2008) established that a majority of researchers had heard about open access institutional repositories. It therefore means that the levels of awareness of institutional repositories issues are varied. Abrizah (2009) in his survey solicits opinion on the usefulness and importance of institutional repositories to the university from 91 respondents. The majority claimed they were aware of institutional repositories 63(69.2%) and those who were aware affirmed that an institutional repository would be very useful for the university and that it is critically important that the university implements an institutional repository 72 (79.1%). This translates that lecturers unanimously felt that it is important for the members of the university to retain those intellectual property rights needed to make their intellectual output available through an institutional repository and that the members of the university consistently make their intellectual output available through an institutional repository 76(83.5%).

However, not everyone felt that it is important that the university consider works placed in an institutional repository when evaluating lecturers for promotion with response rates of; Not at all important 2 (2.2%); Slightly important 7 (7.7%); somewhat important 26 (28.6%); very important 56 (61.5%) and critically important 0 (0%). Findings from the study further affirmed that lecturers know the benefits of an institutional repository but would not want the work deposited in an institutional repository to be used for assessment and promotion. This may be as a result of the fact that the lecturers may have signed the copyright ownership to the publishers of their journal articles. Also, Christian (2008) in his study of institutional repository awareness in Nigeria found that a total of 55(78.4%) agreed that the development of institutional repository is "very important" for their institution, 10 respondents representing (13.9%) of the total response agreed that it is "important", 5(6.9%) respondents were neutral. None of the respondents sees institutional repository as being "unimportant" to their institution. It could be inferred that lecturers in Nigeria know the importance of institutional repository.

Kim (2011) investigated the perceptions of faculty members from 17 Carnegie doctorate granting universities in the United States regarding institutional repositories. Results showed that about (60%) of the respondents indicated that they were unaware of their universities institutional repositories. Dutta and Paul (2014) studied selected science and technology faculty members of the University of Calcutta, India and reported that most of the respondents noted that their awareness of institutional repository was less satisfactory as they only became aware of institutional repository through the Internet. On the contrary, the study by Dhanavandan and Tamizhchelvan (2013) on the attitudes and awareness of 200 faculty members in Annamalai University towards institutional repositories and open access publishing. The respondents included assistant professors, associate professors and professors and results showed that 150 (93.75%) indicated that they were aware, 6 (3.75%) were not aware and 4 (2.50%) said they had no opinion. In the Nigerian context, Aghwotu and Ebiere (2016) also examined the awareness and attitude of lecturers towards establishing institutional repositories in Niger Delta University, Bayelsa State, Nigeria and reported that (90.0%) of the respondents stated that they were aware of institutional repositories. Apart from awareness, the perception of institutional repositories is critical to its adoption and utilization.

Oguz and Assefa (2014) conducted a study on the faculty members perceptions towards institutional repositories at regional university in the South-eastern U.S.A. The questionnaire which was the research instrument was administered to 500 respondents online via surveymonkey.com. Findings revealed that a little over half of the respondents had a favourable or positive perception towards institutional repositories. Results from the study of Dutta and Paul (2014) also showed that majority of the faculty reported a positive favourable perception regarding institutional repositories. In a recent study, Ukwoma and Dike (2017) studied 491

academics attitudes towards the utilization of institutional repositories in five Nigerian universities. They reported that the fact that academics disagreed with the negative statements in the null hypotheses which showed that they had a positive attitude towards submission of their publications. The development of the institutional repositories in university libraries, especially in developed societies where advance information and communication technologies (ICTs) are used for retrieval and dissemination of information has been a global phenomenon.

Research Methodology

The survey research design was adopted for the study. The target population for this study comprises all lecturers in federal universities in the six geopolitical zones in Nigeria totalling 11,591 spread across the 43 federal-owned universities in Nigeria (Preliminary investigation, 2020). Multi-stage sampling procedure was adopted in selecting the sample for the study. Purposive sampling technique was adopted in selecting the oldest federal university in each of the six geo-political zones in Nigeria. The universities selected are: University of Ibadan, Oyo State (South-West); Ahmadu Bello University, Zaria, Kaduna State (North-West); University of Maiduguri, Borno State (North-East); University of Benin, Edo State (South-South); University of Ilorin, Kwara State (North-Central) and University of Nigeria, Nsukka, Enugu State (South-East). At the second stage, purposive sampling technique was used to select 5 faculties that are commonly available in all the selected universities viz: Faculties of Science, Agriculture, Social Science, Law and Arts. These faculties are popular ones in universities with vibrant academic programmes. Also, purposive sampling technique was used to select one department that is commonly available in the selected faculties. Therefore, Departments of Computer Science (Faculty of Science), Animal Science (Faculty of Agriculture), Sociology from (Faculty of Social Science), Law (Faculty of Law) and History (Faculty of Arts) were selected. Total enumeration was used to include all the lecturers in the selected departments to constitute the sample size for the study. Therefore, a total of 724 lecturers constitutes the sample size for the study.

The instrument used for data collection was a structured questionnaire. The questionnaire titled "Use of Institutional Repositories Questionnaire (UIRQ) consists of six sections. Section A is designed to elicit information on the demographic information of the respondents such as name of institution, faculty, department, gender, age, designation and work experience. Section B of the questionnaire elicited information on use of institutional repositories and comprises 34

items. The questionnaire was administered on 30 lecturers of Obafemi Awolowo University, Ile Ife, Osun State for the pilot study. The test-retest method was adopted in finding the reliability of the questionnaire which yielded utilization of institutional repositories reliability coefficients of 0.947.

Presentation of results

Research Questions One: What are types of information resources available in the institutional repositories in federal universities in Nigeria?

| S/A | Types of Resources Available | Yes | No | | Std. |
|-----|------------------------------|-------------|------------|-------------------|------|
| | | | | $\overline{\chi}$ | Dev |
| 1 | Photographs | 507 (93.9%) | 33 (6.1%) | 1.94 | .240 |
| 2 | Notebooks | 506 (93.7%) | 34 (6.3%) | 1.94 | .243 |
| 3 | Seminar papers | 506 (93.7%) | 34(6.3%) | 1.94 | .243 |
| 4 | Inaugural lectures | 505 (93.5%) | 35(6.5%) | 1.94 | .240 |
| 5 | Illustrations and Drawings | 504 (93.3%) | 36 (6.7%) | 1.93 | .250 |
| 6 | Bulletins | 499 (92.4%) | 41 (7.6%) | 1.92 | .265 |
| 7 | Posters | 499 (92.4%) | 41 (7.6%) | 1.92 | .265 |
| 8 | Newspapers | 497 (92.0%) | 43(8.0%) | 1.92 | .271 |
| 9 | Maps | 497 (92.0%) | 43 (8.0%) | 1.92 | .271 |
| 10 | Patents | 497 (92.0%) | 43 (8.0%) | 1.92 | .271 |
| 11 | Charts | 495 (91.7%) | 45 (8.3%) | 1.92 | .277 |
| 12 | Guest lecture series | 404 (91.5%) | 36(8.5%) | 1.91 | .279 |
| 13 | Conference Proceedings | 488 (90.4%) | 52(9.6%) | 1.90 | .295 |
| 14 | Faculty lectures | 487 (90.2%) | 52(9.8%) | 1.90 | .298 |
| 15 | Realia (Real objects) | 485 (89.8%) | 55 (10.2%) | 1.90 | .303 |
| 16 | Banners | 482 (89.3%) | 58 (10.7%) | 1.89 | .310 |
| 17 | Models | 478 (88.5%) | 62 (11.5%) | 1.89 | .319 |
| 18 | Textbooks | 473 (87.6%) | 67 (12.4%) | 1.88 | .330 |
| 19 | Theses and Dissertations | 472 (87.4%) | 68(12.6%) | 1.87 | .332 |

 Table 1: Frequency Distribution of Respondents' View on the Types of Resources (n=540)

| 20 | Book of Abstracts | 465 (86.1%) | 75(13.9%) | 1.86 | .346 |
|----|-------------------|-------------|------------|------|------|
| 21 | Newsletters | 458 (84.8%) | 82(15.2%) | 1.85 | .359 |
| 22 | Journals | 455 (84.3%) | 85 (15.7%) | 1.84 | .365 |
| 23 | Book chapters | 401 (74.3%) | 139(25.7%) | 1.74 | .438 |

Table 1 reveals that photographs 507 (93.9%), notebooks 506 (93.7%), seminar papers 506 (93.7%), inaugural lectures 505 (93.5%) and illustrations and Drawings 504 (93.3%) topped the list of types of information resources available in the institutional repositories of federal universities in Nigeria as affirmed by the respondents while book of abstracts, newsletters, journals and book chapters ranked least with an response rates of 465 (86.1%), 458 (84.8%), 455 (84.3%) and 401 (74.3%) respectively. The implication to be drawn from the result is that photographs, notebooks, seminar papers, inaugural lectures and illustrations and Drawings are the most common types of information resources in the institutional repositories. Meanwhile, the fact that the more useful information resources such as journals, book of abstracts, book chapters and conference proceedings are not among the top information resources available in the institutional repositories of federal universities in Nigeria is a cause for concern.

Research questions Two: For what purposes do lecturers in federal universities in Nigeria use institutional repositories?

| S/N | Purposes | SA | Α | D | SD | | Std. |
|-----|-----------------------------|-------|-------|-------|-------|-------------------|------|
| | | | | | | $\overline{\chi}$ | Dev |
| 1 | I use IR for Preparing | 70 | 223 | 161 | 86 | 2.51 | .911 |
| | seminar/lecture notes | 13.0% | 41.3% | 29.8% | 15.9% | | |
| 2 | I use IR for Writing | 70 | 226 | 145 | 99 | 2.49 | .937 |
| | papers/proposals | 13.0% | 41.9% | 26.9% | 18.3% | | |
| 3 | I use IR for Seminars | 55 | 238 | 147 | 100 | 2.46 | .908 |
| | presentations | 10.2% | 44.1% | 27.2% | 18.5% | | |
| 4 | I use IR for Research works | 70 | 183 | 187 | 100 | 2.41 | .935 |

Table 2:Purposes of use of institutional repositories by lecturers in federaluniversities in Nigeria (n=540)

| | | 13.0% | 33.9% | 34.6% | 18.5% | | |
|---|--------------------------------|-------|-------|-------|-------|------|-------|
| 5 | I use IR for Preparing for | 59 | 186 | 177 | 118 | 2.34 | .940 |
| | lecture series | 10.9% | 34.4% | 32.8% | 21.9% | | |
| 6 | I use IR for Developing | 50 | 184 | 138 | 168 | 2.21 | .989 |
| | course materials/notes | 9.3% | 34.1% | 25.6% | 31.1% | | |
| 7 | I use IR for Writing book | 59 | 151 | 148 | 182 | 2.16 | 1.015 |
| | reviews | 10.9% | 28.0% | 27.4% | 33.7% | | |
| 8 | I use IR for Grants write up | 41 | 149 | 182 | 168 | 2.12 | .937 |
| | | 7.6% | 27.6% | 33.7% | 31.1% | | |
| 9 | I use IR for Obtaining general | 58 | 131 | 134 | 217 | 2.06 | 1.036 |
| | knowledge | 10.7% | 24.3% | 24.8% | 40.2% | | |

Sources: Researcher's field-report, 2021

Decision Rule: 0.1-1.0=Strongly Disagree, 1.1-2.0=Disagree, 2.1-3.0=Agree, 3.1-4.0=Agree

Table 2 presents the results of analysed data on the purposes for which lecturers in federal universities in Nigeria use institutional repositories. The results reveals that preparation of seminar/lecture notes (54.3%, $\overline{\chi} = 2.51$), writing papers/proposals (54.3%, $\overline{\chi} = 2.49$), seminars presentations (54.3%, $\overline{\chi} = 2.46$), and research works (46.9%, $\overline{\chi} = 2.41$) were ranked higher as the purposes by the respondents as purposes for which they used institutional repositories while writing book reviews (38.9%, $\overline{\chi} = 2.16$), grants write up (35.2%, $\overline{\chi} = 2.12$), and obtaining general knowledge (35.0%, $\overline{\chi} = 2.06$) were ranked lower. This implies that the major purposes for which lecturers in federal universities in Nigeria use institutional repositories are preparation of seminar/lecture notes, writing papers/proposals, seminars presentations, and research works which revolve around teaching and research as the core mandate of the lecturers in.

Research questions Three: What is the frequency of use of institutional repositories by lecturers in federal universities in Nigeria?

| Table 3: Frequency of Use of Institutional Repositories by Lecturers in Federal Universitie | S |
|---|---|
| in Nigeria (N=540) | |

| S/A | IR Resources | DA (%) | WE (%) | MO (%) | OC (%) | NU (%) | | Std. |
|-----|--------------|--------|--------|--------|--------|--------|-------------------|------|
| | | | | | | | $\overline{\chi}$ | Dev |

| | | | 1 | | 1 | - | | |
|----|---------------|-----------|----------|----------|-----------|----------|------|------|
| 1 | Book chapters | 110(20.4) | 120(20.4 | 76(14.1) | 140(25.9) | 94(17.4) | 3.02 | 1.41 |
| 2 | Newsletters | 107(19.8) | 85(15.7) | 88(16.3) | 165(30.6) | 95(17.6) | 2.90 | 1.39 |
| 3 | Patents | 119(22.0) | 75(13.9) | 59(10.9) | 171(31.7 | 116(21.5 | 2.83 | 1.47 |
| 4 | Journals | 100(18.5) | 64(11.9) | 110(20.4 | 170(31.5) | 96(17.8) | 2.82 | 1.36 |
| 5 | Illustrations | 108(20.0) | 96(17.8) | 46(8.5) | 148(27.4) | 142(26.3 | 2.78 | 1.50 |
| | and Drawings | | | | | | | |
| 6 | Newspapers | 112(20.7) | 42(7.8) | 104(19.3 | 167(30.9) | 115(21.3 | 2.76 | 1.41 |
| 7 | Conference | 82(15.2) | 55(10.2) | 129(23.9 | 202(37.4) | 72(13.3) | 2.76 | 1.25 |
| | Proceedings | | | | | | | |
| 8 | Theses and | 74(13.7) | 89(16.5) | 96(17.8) | 182(33.7) | 99(18.3) | 2.74 | 1.31 |
| | Dissertations | | | | | | | |
| 9 | Book of | 77(14.3) | 58(10.7) | 108(20.0 | 217(40.2) | 80(14.8) | 2.69 | 1.25 |
| | Abstracts | | | | | | | |
| 10 | Notebooks | 78(14.4) | 100(18.5 | 72(13.3) | 139(25.7) | 151(28.0 | 2.66 | 1.42 |
| | | |) | | | | | |
| 11 | Charts | 92(17.0) | 71(13.1) | 65(12.0) | 178(33.0 | 134(24.8 | 2.65 | 1.41 |
| 12 | Seminar | 73(13.5) | 79(14.6) | 71(13.1) | 212(39.3) | 105(19.4 | 2.64 | 1.31 |
| | papers | | | | | | | |
| 13 | Textbooks | 50(9.3) | 80(14.8) | 120(22.2 | 208(38.5) | 82(15.2) | 2.64 | 1.17 |
| 14 | Faculty | 59(10.9) | 74(13.7) | 94(17.4) | 236(43.7) | 77(14.3) | 2.63 | 1.20 |
| | lectures | | | | | | | |
| 15 | Guest lecture | 52(9.6%) | 82(15.2) | 103(19.1 | 198(36.7) | 105(19.4 | 2.59 | 1.23 |
| | series | | | | | | | |
| 16 | Posters | 64(11.9) | 64(11.9) | 109(20.2 | 192(35.6 | 111(20.6 | 2.59 | 1.26 |
| 17 | Bulletins | 41(7.6) | 95(17.6) | 85(15.7) | 208(38.5) | 111(20.6 | 2.53 | 1.21 |
| 18 | Inaugural | 45 (8.3) | 72(13.3) | 84(15.6) | 251(46.5) | 88(16.3) | 2.51 | 1.16 |
| | lectures | | | | | | | |
| 19 | Maps | 68(12.6) | 69(12.8) | 63(11.7) | 197(36.5) | 143(26.5 | 2.49 | 1.33 |
| 20 | Banners | 54(10.0) | 77(14.3) | 72(13.3) | 193(35.7) | 144(26.) | 2.45 | 1.29 |
| 21 | Realia (Real | 52(9.6) | 65(12.0) | 84(15.6) | 206(38.1) | 133(24.6 | 2.44 | 1.24 |
| L | | | 1 | L | L | 1 | | |

| | Grand Mean | | | | | | 60.8 | |
|----|---------------|---------|----------|----------|-----------|----------|------|------|
| | Weighted Mean | l | | 1 | | | 2.64 | |
| 23 | Photographs | 36(6.7) | 57(10.6) | 80(14.8) | 224(41.5 | 143(26.5 | 2.29 | 1.16 |
| 22 | Models | 43(8.0) | 75(13.9) | 78(14.4) | 200(37.0) | 144(26.7 | 2.39 | 1.23 |
| | objects) | | | | | | | |

Decision Rule: 0.1-1.0=Not Used, 1.1-2.0=Occasionally, 2.1-3.0=Monthly, 3.1-4.0=Weekly; 4.1-5.0=Daily

Table 3 presents the result on the frequency of use of institutional repositories by lecturers in federal universities in Nigeria. The study shows that book chapters was ranked highest with "Weekly Use" by the respondents ($\overline{\chi}$ =3.02). The results of the analysed data reveals "Ocassional Use" of newsletters($\overline{\chi}$ =2.90), patients($\overline{\chi}$ =2.83), journals($\overline{\chi}$ =2.82), illustrations and drawings($\overline{\chi}$ =2.78), newspapers($\overline{\chi}$ =2.76) and conference proceedings($\overline{\chi}$ =2.76) among others. The inference that can be drawn from the results is that lecturers in federal universities in Nigeria. Make use of only book chapters on weekly basis while other information resources are used ocassionally. The weekly use of book chapters can be linked to the fact that lecturers need to consult books for teaching purposes. The ocassional use of other resources may be responsible for the average level of research productivity established among the lecturers. In establishing the overall frequency of institutional repositories by lecturers in federal universities in Nigeria, the use of test of norm was used as presented in Table 5.

Table 4: Test of Nom showing the frequency of use of institutional repositories by lecturers in federal universities in Nigeria

The grand mean that shows the mean index is 60.8, and the classification was grouped into three (3) namely; Not used, Occasional use and Regular use

| Interval | Mean index | Frequency of use of IR |
|----------|------------|------------------------|
| 1-38 | | Not used |
| 39-77 | 60.8 | Occasional use |
| 78-115 | | Regular use |

Table 4 focused on establishing the frequency of use of institutional repositories by lecturers in federal universities in Nigeria. The result reveals the prevalence of occasional use of institutional repositories by lecturers in federal universities in Nigeria.

Discussion of findings

It is evident from the findings that institutional repositories in the selected federal universities in Nigeria contained majority of the resources that could serve as leverage for lecturers in carrying out their research responsibilities. This is an affirmation of the position of Adaeze (2020) that there are several resources in institutional repositories to assist lecturers in carrying out research activities. The result affirms the assertion by Onyebinama, Anunobi, and Onyebinama (2021) that rich content could be available in the institutional repositories since faculty members are the major depositors of the content. Resource availability in the repositories should be advantageous to lecturers for high productivity of lecturers in the universities. The documents on IR are digital in nature, these digital documents consist of all electronic publications such as journals, theses, books and conference papers (Okumu, 2015).

Despite the fact that lecturers attested to availability of useful resources in their universities' institutional repositories, the study found that lecturers in federal universities in Nigeria make use of the institutional resources for the purposes of preparation of seminar/lecture notes, writing papers/proposals, seminars presentations, and research works only. This finding affirms the results from the study of Martin-Yeboah, Filson and Boohene (2020) which reported that lecturers consult institutional repositories resources for the purposes of seminar/lecture notes, writing papers/proposals and seminars presentations. Li and Yang (2015) opined that in order for IRs to be fully beneficial, there is the need for all stakeholders to be aware of their existence, understand their value and above all, be willing to contribute to their sustainability. Dutta and Paul (2014) also pointed out that awareness is paramount. It was pointed out that low faculty awareness contributes to low patronage of the repositories.

Ogbomo and Bibiana (2015) insist that universities should encourage promotional activities geared towards creating awareness of IR which will in turn enhance positive attitude towards IR establishment in universities. Repository sustainability demand that at every stage, the university community should be carried along in the development of the IR project. In a study of two private and two public universities in Ghana, it emerged that repositories tended to

be sustainable when there is a buy-in from every facet of stakeholders of an academic institution in the conception, creation and promotion of repositories in a collaborative manner (Martin-Yeboah, Alemna and Adjei, 2018). Ukwoma and Dike (2017) further admonish for the training for academics, librarians, and repository managers in order to equip them with the skills to organise the content for easy accessibility and retrieval of documents.

The results revealed overall occasional use of institutional repositories by lecturers in federal universities in Nigeria. The results further revealed weekly use of institutional repositories to access only book chapters while other information resources are used occasionally. The weekly use of book chapters can be linked to the fact that lecturers need to consult books for teaching purposes. The ocassional use of other resources may be responsible for the average level of research productivity established among the lecturers. This finding is at variance with the result of the study of Bamigola and Adetimirin (2017) which reported that the development of institutional repositories in Nigerian universities is on the increase, and awareness of institutional repositories is on the increase. Asadi (2019) also observed that university repositories provide scholars with broader knowledge related to the research that is carried out by the individuals or groups in the specific area of interest. Institutional repositories present information users' access to wide range of information materials or intellectual contents all in one platform and location for their use.

Institutions subscribe to databases that are very expensive to maintain while institutional repositories are freely available to access. Access has been a major challenge to several research materials that could aid research activities of lecturers. The ease of accessing institutional repository has greatly encourage high usage among lecturers. The position of Adeyemo and Jamogha (2021) that institutional repository could influence the research productivity of lecturers has also been confirmed through this study.

Summary and Conclusion

The study answered four research questions. The study established Photographs, notebooks, seminar papers, inaugural lectures and illustrations and drawings are the most common types of information resources in the institutional repositories of federal universities in Nigeria. Preparing seminar/lecture notes, writing papers/proposals, seminars presentations, research works, preparing for lecture series and developing course materials/notes are the major

purposes for which lecturers in federal universities in Nigeria use institutional repositories just as an overall occasional use of institutional repositories was established among the lecturers in federal universities in Nigeria.

Recommendations

The following recommendations are proffered on the basis of the findings from the study:

- University management should ensure the formulation and implementation of adequate university-wide policy that would encourage and supports the use of institutional repositories by the lecturers. Such policy should be one that can be easily translated to reality and devoid of any cumbersomeness.
- Awareness on the availability and functionality of institutional repositories should be created among the lecturers in federal universities in Nigeria. The university management should organise regular training and retraining programme and workshops on the effective use of institutional repositories.
- Infrastructure to support effective functioning of institutional repositories in the universities such as hardware stability and regular maintenance, faster internet access and stable power supply. This will improve access to institutional repositories resources for lecturers' use.
- 4. Lecturers should take advantage of every available opportunity to improve on their use of institutional repositories.

References

- Adeyemi, J. A. A., H. D., Akinlade, O. O., & Bribena, E. I (2017). The Nigerian institutional repositories: Opportunities and barriers. *Academia_Journal_of_Educational_Research* 5(10): 297-305.
- Anyaogu, U. & Mabawonku I. (2014); Legal information resources availability and utilization as determinants of law lecturers research productivity in Nigeria Universities; *Information and Knowledge Management*; 4(9).
- Bamigbola, A. A & Adetimirin, A. A.; (2017); Evaluating Use of Institutional Repositories by Lecturers in Nigerian Universities Information Impact: *Journal of Information and Knowledge Management*; 8 (8) 83 -102.
- Bamigbola, A. A (2018); Awareness, Anchor and Adjustment factors as determinant of jperceived ease of use of Institutional Repositories by Lecturers in Nigeria Universities: Ph.D Theses, LARIS, University of Ibadan.
- Barton, M. R. & Waters, M. M. (2004). Creating an Institutional Repository: LEADIRS
 Workbook. MIT Libraries. Retrieved April 6, 2008 from http://www.dspace.org/implement/leadirs.pdf
- Barwick, J., 2007. Building an institutional repository at Loughborough university: Some experiences. *Electronic Library and Information Systems*, 41(2): 113-123.
- Barwick, J. & Pickton, M., (2006). A librarian's guide to institutional repositories. eLucidate, 3(2),3 -9. Retrieved from https://dspace.lboro.ac.uk/2134/1122.
- Basiru, A. 2018. Level of research productivity of academic staff in private universities in *Current Research*, 10, (08), 73124-73130
- Christian, G. E. (2008), Issues and Challenges to the Development of Open Access Institutional Repositories in Academic and Research Institutions in Nigeria, available at: http://idl-bnc. idrc.ca/dspace/bitstream/10625/36986/1/127792.pdf (accessed 27 June 2011)
- Dutta, G., & Paul, D. (2014). Awareness on institutional repositories-related issues by faculty of University of Calcutta. DESIDOC, 34(4), 293-297. DOI: 10.14429/djlit.34.5138

- Ezema J. J. & Okafor V.N. (2015); Open Access Institutional Repositories in Nigeria Academic Libraries. Advocacy and Issues in Scholarly Communications; Corpus ID 68410083 Semantic Scholar.
- Giesecke, J. (2011). Institutional repositories: Keys to success. *Journal of Library Administration*, 51(5), 529-542.
- Gozetti, P. (2014). Institutional repositories in scholarly communication: A literature review on models, issues and current trends. Available at: https://core.ac.uk/download/pdf/41181177.pdf.
- Haliso, Y. & Toyosi (2013): Influence of information use on academic productivity of lecturers in Babcock University, Nigeria; *Journal of Information Engineering and Application* 3(11).
- Li, Y. & Banach, M. (2011). Institutional repositories and digital preservation: Assessing current practices at research libraries. The Magazine of Digital Library Research, 17(5/6), 113, doi:10.1045/may2011yuanliLibraryTrends, 57(2), 2622
- Mafhukho, F. M., Wekullo, C. S. & Muyia, M. M. (2019). Examining research productivity of faculties in selected leading public University in Kenya: *International Journal of Educational Development*, 66, 44 – 51.
- Malekani & Kavishe (2018), The role of repositories in making lost or hidden cultures accessible, a study across four African university libraries. *Library Philosophy and practice*. E-journal no.2011.
- Mantikayan, J. M. & Abdulgani, M. A. (2018). Factors affecting faculty research productivity: conclusions from a critical review of the literature," *JPAIR Multidisciplinary Research*, 31(1), 111-120
- Nwabuisi T. I. & Harriet U. I. (2017); Institutional policy and management of institutional Repositories in Nigerian Universities; *Unpublished lecture*; University of Nigeria, Nzukka.
- Nwokedi., G. I. (2015). Lecturers' awareness perception and utilization of institutional repositories in two Universities in Nigeria (MLIS Dissertation). LARIS Dept. University of Ibadan.
- Ojo, R A. & Ilesanmi, T. C. (2016). Implementing digitization initiatives in University libraries in Nigeria; A backbone for achieving institutional repository (IR); Kenneth Dike Library,

University of Ibadan experience; An International Journal of Information and Communication Technology (ICT) 13; (1)105 – 120.

- Okumu, O. D. (2015) Adoption of institutional repositories in dissemination of Scholarly information in universities in Kenya with Reference to United States International University Africa. *Being a research project submitted in partial fulfillment of the requirements for the award of the degree of Master of Library and Information Science, Department of Library and Information Science, University of Nairobi*. Available at: http://erepository.uonbi.ac.ke/bitstream/handle/11295/93088/Ogenga_Adoption%20of%20 institutional%20repositories.pdf?sequence=3&isAllowed=y.
- Philips, A. C. & Okonmah, A. N. (2020); Lecturers workload and productivity in universities in Delta state; *International Journal of Education, Learning and Development*; 8 (3) 2054-6300.
- Prosser, D. (2019). Institutional repositories and open access: The future of scholarly communication, 23 (2-3), 167-170.
- Rames, K. & Marana, O. (2018). Institutional repositories and its consequences for government college libraries. National Conference "Role of Libraries in Changing Information & Communication Technology (ICT) Scenario" 9th Feb 2018 Warangal Kolhapur Maharashtra
- Rao, P. V. (2017). Institutional repositories: A key role for libraries. *Paper presented at the* 5th International CALIBER, Panjab University, Chandigarh, 08-10 February, 2007
- Ratanya, F. C. (2010). Electronic theses and dissertations (ETD) as unique open access materials: Case of the Kenya Information Preservation Society (KIPS). *Library Hi Tech News*, 27, 15-20. https://www.emeraldinsight.com/doi/10.1108/07419051011083190.