

## **The Place of Institutional Repositories in the Research Activities of Academic Staff of the University of Nigeria, Nsukka**

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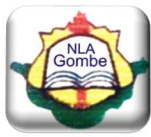
### **Abstract**

*The study investigated the place of institutional repositories in the research activities of the academic staff of the University of Nigeria, Nsukka (UNN). Four objectives guided the study, which include the finding out the materials housed, the materials adopted for research activities among other objectives. The descriptive survey design was adopted for the study. The population of the study was 82, while the complete census was used to study the entire population. A structured questionnaire was the instrument used for data collection. Descriptive statistics, using mean and standard deviation using the SPSS, was the method adopted for data analysis. The findings of the study revealed that foreign and local journals, as well as students' projects, were among the materials housed in the IR of UNN. Theses and dissertations, link to databases, conference papers/works, etc were highly adapted for research activities of the academics. The IR was found highly effective in the areas of reduction in the number of the week it takes to complete research, increase in global visibility, carefulness during research, among other areas. Different factors were found militating the use of IR for research activities of the academics. They include the absence of programmes to train the academics on the issue of IR, absence of well-articulated policy, and negligence of some academics towards depositing in the IR, among others. Based on the findings, the study concluded that IR has a prominent place in the research activities of the academic staff of UNN as it is found to be highly effective in numerous research areas. To this end, the study recommended that Nigeria university regulatory bodies should make the establishment of IR a compulsory issue and further monitor compliance as well as encourage the academics on the use of such repositories, among other things.*

**Keywords:** Institutional Repositories, Research, Academic Staff, University

### **Introduction**

It is common parlance in Nigerian academics that it is either one publishes or perishes. This is what indeed spores most of the Nigerian academics into research activities without necessarily observing its rudiments for quality output. Consequently, the introduction of institutional repositories (IRs) in institutions of higher learning has made for the enhancement and achievement of effective and quality research output. According to Chukwueke, Nnadozie and Okafor (2020), IRs are introduced to increase the efficiency, quality and effectiveness of research activities. Besides these undisputable gains, IRs have led to a strong re-modulation of the academic management system and research activities of academics as they play a great role in the present era of speed and accuracy in research and development.

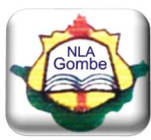


Lynch (2003), defined an institutional repository (IR) as a set of services that are offered by an institution to its publics for the management and dissemination of scholarly digital materials, which are created or generated by the institution and its user community. It could also be seen as a digital research archive, consisting of accessible collections of scholarly work that represent the intellectual capital of an institution. Nnadozie and Chukwueke (2016) defined IR as means for institutions to manage the digital scholarship generated within their community, maximize access to research outputs both before and after publication, with the major aim of increasing the visibility and academic prestige of both the institution and authors. An IR is a digital archive of the intellectual product created by the faculty, research staff, and students of an institution and made accessible to end-users both within and outside of the institution with little or no barrier to access (Johnson, 2002).

Based on the foregoing definitions, it could be summarized that an institutional repository is simply an online platform for collecting, archiving, preserving and making available in digitized form, the various intellectual, administrative and scholarly output of an academic, research, commercial, etc. establishment for present use and future reference. Tracing the origin of IR, scholars revealed that it originated from the university setting with large crops of researchers and scholars before spreading to other non-university establishments, especially research institutes, hospitals, security agencies, financial institutions and multi-national corporations. However, no other organization has championed the course of institutional repository more enthusiastically than the universities, which is as a result of its academic nature and the presence of researchers and scholars, of which the academic staff of the University of Nigeria, Nsukka (UNN) is among.

Consequently, the availability and use of IR for research activities in institutions of higher learning have come to be a new and pressing issue in information creation, handling and dissemination as well as academic visibility of staff (Chukwueke, Nnadozie and Okafor, 2020). This is true as a result of the IRs being agents for easy access to relevant, efficient and effective information (Nnadozie and Chukwueke, 2016). Furthermore, in this digital era, academic institutions have increasingly recognized IR as an essential infrastructure of scholarly dissemination (Jain, et al., 2015). These IRs have created platforms and opportunities for scholars to work collaboratively through extensive infrastructures, with access to resources and knowledge services in borderless environments. Based on this rationale and owing to rapid growth in digital assets, which creates challenges in the use, management, archiving and application of digital information and databases, there is a need for IR in every institution of higher learning. Interestingly, it is worthy of note that most Nigerian universities have been grappling with how to manage the digital intellectual output they produce including journal articles, conference papers, reports, theses & dissertation, lecture notes, artworks, research notes and research data.

Nonetheless, preliminary observations have shown that not all Nigerian universities are effectively engaged in institutional repositories in such a way that it supports the research activities of their academic staff. The consequence of this ineffective engagement has resulted in poor research output and academic invisibility. To this end, though several studies have been conducted within and outside the academia to determine the impacts, challenges as well as proffering solutions to problems and challenges facing the development of IRs for research activities of academics, little efforts have been recorded in respect of institutional repository and research activities of the academic staff of the University of Nigeria, Nsukka (UNN). Be it as it may, this study aims to critically examine IRs as it concerns research activities of the academic staff users of the University of Nigeria, Nsukka institutional



repository. It investigates the materials housed in the IR, the adoption of the materials housed, the effect of the IR on the research activities of the academic staff, and militating factors against the use of the IR for research activities by the academic staff of the University of Nigeria, Nsukka.

UNN is one of the premier and first-generation universities in Nigeria, which was established in October 1960 and is located in the Eastern region of Nigeria. The University was formally opened on 7th October 1960, as the climax to the Nigerian independence celebrations. Lectures began on 17th October 1960 with an enrollment of 220 students and 13 members of the academic staff. To date, the University has two branches, one located on the main campus and the other located at the Enugu Campus. It has an institutional repository situated under its digital library. It is for online researches and searches for databases. It boasts of academic staff subscribers of 82 staff as of the 2019/2020 academic session. These academic staff have handles and are allowed to self-archive their intellectual output on the repositories (GODAN, 2020).

### **Purpose of the Study**

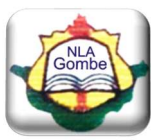
The purpose of this study is to examine the place of institutional repositories (IRs) in the research activities of the academic staff of the University of Nigeria, Nsukka (UNN). Specifically, the following objectives guided the study, to;

1. identify the materials housed in the IR of UNN for the academic staff's research activities;
2. determine the materials adopted by the academic staff of UNN for their research activities;
3. ascertain the effect of the IR on the research activities of the academic staff of UNN; and
4. find out the militating factors against the use of the IR for research activities by the academic staff of UNN.

### **Literature Review**

According to Adamick and Reznik-Zellen (2010), the issue of repositories is being under-studied and under-represented in library science literature, scholarly communication and digital library fields. Not minding the roles of these repositories in collecting and preserving in digital form, the intellectual output of an institution as observed by Hitchcock (2007), most universities seem to pay less attention to its functionality (Nnadozie and Chukwueke, 2016). Crow (2012) believed that an IR pays attention to the needs of users, especially authors and researchers, and further reduces the role and activities of the publisher in the sense that it creates an avenue whereby authors can publish in the repository. Gargouri et al. (2010) noted that a strong benefit of the IR is that it affords the users the ability to browse and retrieve papers from the electronic database with the application of an online web interface, or through e-mail links, and authors can self-archive their papers for references and preservation.

Nonetheless, the statistical analysis provided by *OpenDOAR* (2008) showed the annual growth of IRs in different regions of the world with Europe and North America having the highest concentration of IRs. To this end, Nnadozie and Chukwueke (2016) and Chukwueke et al., (2020) asserted that there are clear pointers that the growth of institutional repositories has been very remarkable in developed countries, as well as some developing countries. This is true as a result of literature that revealed that as of November 2006, there were 764 institutional repositories registered worldwide in the Registry of Open Access Repositories.

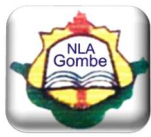


In 2008, Africa came into the limelight where it was shown that thirteen were maintained by South African institutions, while Egypt, Kenya, Namibia, Uganda and Zimbabwe maintained a single working repository. These repositories housed not less than 1000 research items in them. However, notwithstanding the present large number of academic and research institutions in Nigeria, available records suggest that this phenomenon is still not widespread as only a few institutional repositories are operational in the country's universities (Nwokedi and Emeahara, 2015; Kpakiko and Aliyu, 2015). This has been partly attributed to a lack of awareness of the importance and the place of IR in academia in general and research in particular. However, in 2019, Adam and Kaur (2019) reported that in Nigeria, twenty-five (25) IRs are online and twenty-three (23) IRs registered on OpenDOAR. Sixteen (16) IRs out of the twenty-five (25) were found active. It was equally revealed that theses and dissertations, journal articles, conference and seminar papers formed the bulk of the information resources deposited in the repositories. Among the identified universities, the University of Nigeria Nsukka, Covenant University and Ahmadu Bello University have the highest deposit. Despite the above, all these, the performances of the universities were found to be below expectation.

It is so sad that the IR, which evolved in the Nigerian setting has failed to leave up to the expectations of Ware (2004), who characterized the real IR to be a web-based database of scholarly materials, institutionally defined, cumulative and perpetually open and interoperable, and thus collects, stores and disseminates scholarly output aimed at solving the questions of the mind. In our day-to-day life, we formulate several questions in our mind. We want to get answers to these questions. Some of these questions according to Forsman (2005) can be answered easily without any need of scientific scrutiny, while some questions need to be answered logically. The process that needs to be followed in finding answers to such question is what research activities encompass. In this way, one can get answers that are to be empirically and subjectively proven, valid, logical, authentic and verifiable (Uzuegbu, 2012).

The process to be followed in the conduction of the research might be different from one discipline to another (Forsman, 2005). The amount of rigour and control that needs to be applied also varies. In physical and natural sciences the researcher has to apply as much control as possible in conducting the research. In social sciences, the researcher cannot have similar control in the research process but observes behaviour. In summary, Uzuegbu (2012) citing Hill wrote that research results emanating from universities have played a key role in the process of economic growth in most countries. The document rated universities as sources of new knowledge and a trainer of scientists and engineers who work in industrial laboratories. These researches are what results in intellectual outputs.

On the availability and utilization of institutional repositories for these researches, some researchers have made different reports. Watson (2007) interviewed 21 researchers from Canfield University and reported that the interviewees considered it important to share their work, but most were not aware of the potential of IRs as a way to do so; even among those who knew of the existence of IRs, many were not using them. Xia (2010) found researchers to be increasingly aware of IR as an engine room for their research activities but only at a very basic level, with insufficient understanding to enable them to participate in the initiatives, suggesting that increased awareness alone may not be sufficient to increase faculty use of IRs. Ogbomo and Muokebe (2015) in their study on institutional repositories, as an emerging initiative in Nigerian university libraries, with a sample of 1,136 lecturers reported that lecturers in South-South federal universities in Nigeria are aware of the place of IR for scholarly communications. Respondents were also asked to indicate the source from which they became aware of IR. It was discovered that the majority of the respondents became



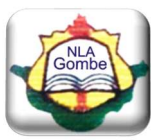
aware of IR through academic staff/colleagues and Internet browsing. Furthermore, on the perceived needs of IR, the respondents indicated: to communicate result, to advance their career, for personal prestige in their field, for longtime preservation, for protection from plagiarism, among other reasons.

Nicholas, Rowlands, Watkinson, Brown and Jamali (2012) investigated the perceptions of scientific researchers on digital repositories. They analyzed 1,685 survey responses obtained from faculty members and students who had been registered in the Institute of Physics Publishing. They found that 1,079 (63.7%) of survey respondents had deposited recently, their research outcomes in some kind of repository and that 44.1% had specifically used IRs. Oguz and Assefa (2014) surveyed faculty members at a medium-sized university to investigate their perceptions and attitudes toward IRs and found positive perceptions among 52.9% and negative perceptions among 47.1%. In general, although there are some variations across disciplines and institutions (Cullen and Chawner, 2011; Oguz & Assefa, 2014), there appears to be a growing rate of author participation in IRs, but there is still plenty of room for further growth (Björk, et al., 2014). Adam and Kaur (2019) investigated the practice of institutional repository in Nigeria using the University of Nigeria, Nsukka, Covenant University and Ahmadu Bello University, Zaria to statistically analyze the content of each repository types, the currency of information resources, and the number of IRs registered with Directory of Open Access Repository (OpenDOAR) and Registry of Open Access repositories (ROARs) in Nigeria, and revealed that IRs is mainly deployed to create global visibility of scholarly output of the institution concerned through which recognition and prestige of the institutions can be envisaged.

According to Ogbomo and Muokebe (2015), IR aims to increase visibility, preservation and storage of all types of institutional output, including unpublished literature, support for learning and teaching, standardization of institutional records, ability to keep track of and analyze research performance, breaking down of publishers' cost and permission barriers, help universities to share their knowledge and expertise. These and more can be attributed to the benefits of the IR to institutions, authors and students. However, as to whether the IRs correlate with the research activities of the academic staff of the University of Nigeria, Nsukka, the answer is still lacking in the literature. Hence, a major gap in the literature, which needs to be filled.

### **Methodology**

The study adopted a descriptive survey design. The population of the study was 82 registered academic staff users of the IR of UNN. The 82 academic staff were sampled. The sampling technique used was the complete census sampling technique. The instrument for data collection was a structured questionnaire, comprising 46 item statements. 82 copies of the questionnaire were distributed, but 80 copies were returned, giving a 97.6% response rate. The data collected were analysed using a combination of descriptive and inferential statistics, involving mean and standard deviation. The mean scores were ranked. The real limit of numbers was used in decision making. It shows that item statements with men scores 1.00-1.49 denotes Strongly Disagreed (SD)/ Not Adopted (NA)/ Not Effective; 1.50-2.49 denotes Disagreed (D)/ Less Adopted (LA)/ Less Effective (LE); 2.50-3.49 denotes Agreed (A)/ Highly Adopted (HA)/ Highly Effective; and 3.50-4.00 denotes Strongly Agreed (SA)/ Very Highly Adopted (VHA)/ Very Highly Effective. Furthermore, the results generated were presented using frequency tables.



### Presentation of Result

This part provides the background upon which discussion, conclusion and recommendations are based.

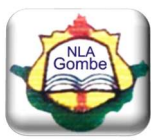
**Research Objective 1:** To identify the materials housed in the IR of UNN for the academic staff's research activities

**Table 1: Materials Housed in the IR of UNN for the Academic Staff's Research Activities**

S/n	Item Statement	Mean	St. Dev.	Rank	Decision
1	Textbooks are housed in the IR	1.95	1.31	15	Disagreed
2	Local journals and housed in the IR	3.60	.74	2	Strongly Agreed
3	Foreign journals are housed in the IR	3.75	.44	1	Strongly Agreed
4	The IR of our school houses newspapers	2.10	1.10	12	Disagreed
5	Magazines are housed in our IR	1.96	.86	14	Disagreed
6	Reports are housed in our IR	2.09	1.07	13	Disagreed
7	Theses and dissertations are housed in our IR	3.30	.68	8	Agreed
8	Lecture notes are housed in our IR	2.13	.97	11	Disagreed
9	Students' projects are housed in our IR	3.50	.55	3	Strongly Agreed
10	Book chapters are housed in our IR	3.40	.86	5	Agreed
11	Published Internet articles are housed in our IR	3.33	.65	7	Agreed
12	Conference works/papers	3.43	.55	4	Agreed
13	There are unpublished scholarly works in our IR	3.23	.66	9	Agreed
14	Data files are housed in our IR	3.40	.59	5	Agreed
15	There are links to databases for research in the IR	3.08	.82	10	Agreed
	<b>Grand</b>	<b>2.95</b>			<b>Agreed</b>

Source: Researcher's Field Survey

Table 1 presents the mean ratings of respondents' view on the materials housed in the IR of the University of Nigeria, Nsukka for the academic staff's research activities. Using the real limit of numbers, the results revealed that item statements 2, 3 and 9 were rated strongly agreed with mean scores and standard deviation of 3.60(.74), 3.75(.44), and 3.50(.55), respectively. Item statements 7, 10, 11, 12, 13, 14, and 15 were rated agreed with mean scores and standard deviation of 3.30(.68), 3.40(.86), 3.33(.65), 3.43(.55), 3.23(.66), 3.40(.59), and 3.08(.82). Furthermore, the mean ranking showed that housing of foreign journals (Item statement 3), (Mean = 3.75 and Standard Deviation = .44) ranked highest, while the housing of textbooks (Item statement 1), (Mean = 1.95 and Standard Deviation = 1.31) was ranked lowest as regards to materials housed in the IR of the University of Nigeria, Nsukka for the academic staff's research activities. The grand mean was 2.95, which indicated that the majority of the respondents agreed that the majority of the materials investigated were housed in the IR of the University of Nigeria, Nsukka.



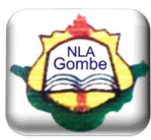
**Research Objective 2:** To determine the materials adopted by the academic staff of UNN for their research activities

**Table 2: Materials Adopted by the Academic Staff of UNN for Research Activities**

S/n	Item Statement	Mean	St. Dev.	Rank	Decision
16	I always refer to the local journals housed in the IR during my researches.	2.88	.88	6	Highly Adopted
17	I always consult the foreign journals in our IR during my researches.	3.50	.83	4	Very Highly Adopted
18	I often make use of the theses and dissertations housed in our IR during my researches.	3.84	.37	1	Very Highly Adopted
19	I always refer to the students' projects for my researches.	1.99	.56	10	Less Adopted
20	I adopt the book chapters housed in our IR for my researches.	2.95	.98	5	Highly Adopted
21	I always refer to the published Internet articles housed in our IR during my researches.	2.59	.96	7	Highly Adopted
22	I always refer to the conference works/papers during my researches.	3.73	.57	3	Very Highly Adopted
23	I often make use of the unpublished scholarly works housed in our IR from my researches	2.41	.59	8	Less Adopted
24	I often refer to the data files housed in our IR for my researches	2.20	.75	9	Less Adopted
25	I often refer to the link to databases providing in our IR for my researches.	3.74	.44	2	Very Highly Adopted
<b>Grand</b>		<b>2.98</b>			<b>Highly Adopted</b>

Source: Researcher's Field Survey

From Table 2, the result shows that majority of the respondents indicated a very high adoption of foreign journals, theses and dissertations, conference works/papers, and link to databases provided in their IR for their researches (item statements 17, 18, 22, and 25). This can be viewed through their various mean scores and standard deviation of 3.50(.83), 3.84(.37), 3.73(.57), and 3.74(.44), respectively. Furthermore, respondents that constitute mean and standard deviation of 2.88(.88), 2.95(.98), and 2.59(.96) showed high adoption of local journals, book chapters, and published Internet articles during their researches, respectively (see item statements 16, 20, and 21). However, few of the respondents believed that they less-adopt students' project, unpublished scholarly works, and data files housed in their IR for their researches. This is indicated in item statements 19, 23 and 24 with the mean scores and standard deviation of 1.99(.56), 2.41(.59), and 2.20(.75), respectively. The grand mean of 2.98, indicated that the majority of the respondents highly adopts most of the materials housed in the IR of the University of Nigeria, Nsukka for their research activities.



**Research Objective 3:** To ascertain the effect of the IR on the research activities of the academic staff of UNN.

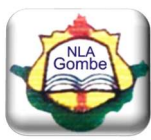
**Table 3: Effect of the IR on the Research Activities of the Academic Staff of UNN**

S/n	Item Statement	Mean	St. Dev.	Rank	Decision
26	UNN IR has supported my research activities.	2.80	1.11	7	Highly Effective
27	It has gingered me to conduct more researches.	3.33	.73	4	Highly Effective
28	The IR has made my research output visible	3.28	.84	5	Highly Effective
29	It has encouraged my carefulness during researches	3.40	.63	3	Highly Effective
30	It has reduced my research proficiency	2.18	1.05	10	Less Effective
31	It has discouraged plagiarism on my side	2.19	1.00	9	Less Effective
32	It has given me more understanding of research methodology	2.59	1.09	8	Highly Effective
33	It has reduced the number of weeks it takes me to conduct researches.	3.60	.67	1	Very Highly Effective
34	It has increased my global visibility	3.41	.93	2	Highly Effective
35	It has encouraged me to pursue more information literacy and ICT skills	3.00	.00	6	Highly Effective
	<b>Grand</b>	<b>2.99</b>			<b>Highly Effective</b>

Source: Researcher's Field Survey

From Table 4, it could be seen that the majority of the respondents that constitutes 3.60(.67) indicates that IR is very highly effective because it reduces the number of weeks it takes them to conduct researches (item statement 33). Furthermore, the majority of the respondents highly effective with the views that UNN IR has supported their research activities, has gingered them to conduct more researches, has made their research outputs visible, encouraged their carefulness during researches, has given them more understanding of research methodology, has increased their global visibility, and has encouraged them to pursue more information literacy and ICT skills as they have mean scores and standard deviation of 2.80(1.11), 3.33(.73), 3.28(.84), 3.40(.63), 2.59(1.09), 3.41(.93), and 3.00(.00), respectively. However, item statements 30 and 31 with mean scores and standard deviation of 2.18(1.05) and 2.19(1.00) were rated less effective by the majority of the respondents. This implies that the reduction in research proficiency and discouragement of plagiarism on the sides of the academic staff were not among the effects of the IR on the research activities of the academic staff. Consequently, with a grand mean of 2.99, the result shows that majority of the respondents agreed that IR has numerous effects on the research activities of the academic staff of UNN.





**Research Objective 4:** To find out the militating factors against the use of the IR for research activities by the academic staff of UNN.

**Table 4 Factors Militating against the Use of IR for Research Activities**

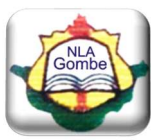
S/n	Item Statement	Mean	St. Dev.	Rank	Decision
36	I have inadequate knowledge of IR	2.59	.96	11	Agreed
37	Most often, management support is absent in using IR to publish researches	3.33	.73	5	Agreed
38	There is the absence of a well-articulated IR policy guiding use of IR in my school	3.74	.44	2	Strongly Agreed
39	There is high negligence of some academics towards depositing their works as a result of no incentive attached.	3.50	.88	3	Strongly Agreed
40	There inadequate funds for conducting researches and depositing in the IR	3.30	.68	6	Agreed
41	There is the absence of programs to train the academics on the use of IR for researches	3.84	.37	1	Strongly Agreed
42	The issue of continuity of the IR is a major challenge	3.08	.82	8	Agreed
43	There is a high cost of Internet subscription as using the IR requires Internet connectivity	3.23	.66	7	Agreed
44	I entertain the fear of Internet fraud and scam	2.95	.95	9	Agreed
45	There is no copyright protection for works deposited in the IR	2.80	1.11	10	Agreed
46	There is a shortage of ICT facilities for researches using the IR	3.41	.93	4	Agreed
	<b>Grand</b>	<b>3.25</b>			<b>Agreed</b>

Source: Researcher's Field Survey

Table 4 presents the respondents' views on the factors militating against IR for research activities. The result, according to the order of ranking shows that majority of the respondents that constitute 3.84(.37), 3.74(.44) and 3.50(.88) strongly agreed that the absence of programs to train the academics on the use of IR for researches, absence of a well-anticipated IR policy guiding use of IR in their school, and high negligence of some academics towards depositing their works as a result of no incentive attached, (item statements 41, 38, and 39), respectively, were among the militating factors against the use of the IR for research activities by the academic staff of UNN. Furthermore, shortage of ICT facilities for researches using the IR 3.41(.93), absence of management support in using IR to publish researches 3.33(.73), inadequate funds for conducting researches and depositing in the IR 3.30(.68), high cost of Internet subscription as using the IR requires Internet connectivity 3.23(.66), issue of continuity of the 3.08(.82), fear of Internet fraud and scam 2.95(.95), no copyright protection for works deposited in the IR 2.80(1.11), and inadequate knowledge of IR 2.59(.96) (item statements 46, 37, 40, 43, 42, 44, 45, and 36) were agreed by the majority of the respondents as constituents of the militating factors. Additionally, a clearer picture considering the grand mean of 3.25 obtained shows that numerous factors are militating against the use of the IR for research activities by the academic staff of UNN.

### Discussion of Findings

The study found that different materials are housed in the IR of UNN for the academic staff's research activities. Based on their mean ranking, as captured in Table 1, it could be deduced that local journals ranked highest followed by foreign journals. However, the study found out that the majority of the respondents were of the views that magazines, newspapers among

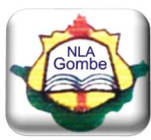


others were not housed in the IR. With these, it could be right to assert from the findings that journal resources are mostly housed in the IR of UNN. The reason why most of the resources were found missing could be as a result of the nature of the IR, which may be only accepting research papers. However, this finding partially corroborates with the earlier works of Ukwoma and Dike (2017), which found a wide range of items deposited, but with the largest proportion comprising theses and dissertations, followed by faculty research output, among other peer-reviewed resources; while the present study revealed the largest proportion of foreign and local journals.

The study also revealed that the academic staff adopt most of the materials housed in their IR for their research activities. However, the respondents showed a very high adoption of theses and dissertations, foreign journals, conference works/papers, and links to databases, with few others being highly adopted. It also revealed the less adoption of students' projects, data files and unpublished scholarly works. The finding is in line with the study of Oguz and Assefa (2014) who surveyed faculty members at a medium-sized university to investigate their perceptions and attitudes toward IRs and found positive perceptions among the majority. Consequently, correlating the results in Table 1 and 2 in the areas of their mean rankings showed that foreign journals were strongly agreed to be housed, whereas the adoption of theses and dissertations took the lead in Table 2. The implication could be a slight disagreement between the library and the academic staff in the area of resources preference.

The study found out numerous effects of IR on the research activities of the academic staff of UNN. In order of their mean ranking, the respondents indicated the effects of a reduction in the number of weeks it takes them to complete their researches, increase in global visibility, encourages carefulness during researches, gingers them to conduct more researches, made their research output visible, encourages them to pursue more information literacy and ICT skills, supported their research activities, and gives them more understanding of research methodology. The finding agrees with studies of Christian (2008) and Ogbomo and Muokebe (2015), which separately revealed the high effect of the IR to the faculty members in the areas of being an avenue to communicate the result to their peers, advance their careers, for personal prestige in their field, for longtime preservation, increase the citation impact (citation counts) of their research works, increase in the visibility of their research works, and wider/faster dissemination of knowledge. Contradictorily, the study of Ogbomo and Muokebe (2015) reported the effect of protection from plagiarism as among the effects of the IR. However, the issues of research proficiency and plagiarism were disagreed in this present study. This is to say that the respondents believed that there is no assurance of research proficiency and discouragement of plagiarism with the IR of UNN.

Additionally, findings revealed the presence of numerous militating factors against the use of IR by academic staff of UNN for research activities. These factors range from the issues of the absence of programs to train the academics on the use of IR for researches, the absence of a well-articulated IR policy guiding use of IR in their school, to, high negligence of some academics towards depositing their works as a result of no incentive attached. Other factors include, shortage of ICT facilities for researches using the IR, absence of management support in using IR to publish researches, inadequate funds for conducting researches and depositing in the IR, high cost of Internet subscription as using the IR requires Internet connectivity, issue of continuity of the, fear of Internet fraud and scam, no copyright protection for works deposited in the IR, and inadequate knowledge of IR. This study corroborates with Ammarukleart (2017), Bamigbola and Adetimirin (2017) which revealed



the following factors, fear of copyrights infringement, plagiarism and lack of awareness among other factors.

### **Conclusion**

It is expedient, based on the findings of this study that institutional repositories positively affects the research activities of academic staff in the universities in different ways. As to whether the IRs are encouraged and supported by the management and academic staff in particular, by funding or depositing works, still needs to be reconsidered in subsequent researches. However, the findings of the effects of IR on research activities becomes a true reflection of most literature, which saw the symbiotic relationship between IRs and research activities. It was revealed that IRs have great supports for academics and research activities. These supports include the fact that they motivate researchers to research more as well as make their research output visible, which are the overall essence of research.

Summarily, these works hold that for there to be efficient and effective research activities, there must be an IR, and for there to be quality and functional IRs, there must be research outputs and academic staff who are willing to deposit these research outputs in their institutional repositories. Based on the findings, this study concludes the presence of a deep gap in research activities of academic staff in UNN without the IR. With this, it becomes a serious challenge for the university management and Nigerian academic libraries to stand up and face the issue of non-visibility of their IRs, which has been their major setback. Furthermore, it will motivate researchers, especially the academic staff in the universities to deposit their materials in the IR which will in return make for their visibility and academic upgrade. This study in its long and short-run is of academic relevant as it will bring to the knowledge of the academics and faculty members on the overall effects and place of the IR with regardsto research activities.

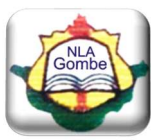
### **Recommendations**

Having conducted this study, the researchers made the following recommendation:

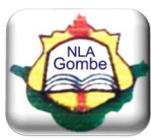
1. Research remains essentially in academics and is highly supported by the IRs. To this end, Nigeria university regulatory bodies should make the establishment of IR a compulsory issue and further monitor compliance. However, these IRs should be managed by the libraries for effective functioning.
2. University management should draw up programmes (such as seminars, symposiums, conferences, etc.) with the sole aim of providing these users, especially, the academic staff with adequate knowledge of IR. This knowledge will help them to use the platform effectively and encourage them to deposit their research output.
3. Management of IRs in Nigerian universities should devise a strong and well-articulated policy. This policy will go a long way in streamlining the materials to be housed, the mode of access as well as the continuity of the project.
4. Efforts should be made by IRs regulatory bodies to guide against Internet fraud and scam to the activities of hackers. Furthermore, upgrading the state of the IR, mounting adequate check information abuse, ensuring copyright protection and advocating for material deposition in the IR should be the top priorities of the library and university management.

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