INVESTIGATING INSTITUTIONAL FACTORS AND USE OF INSTITUTIONAL REPOSITORIES BY LECTURERS IN FEDERAL UNIVERSITIES IN NIGERIA

SUNDAY OLUSOLA LADIPO
Medical Library
Lagos State University College of Medicine
Ikeja, Lagos Nigeria
sundayladipo@gmail.com
ORCID NO. 0000-0003-4446-2875

&

TOLULOPE OLUWAYEMISI ADEPOJU
Department of library and information science,
Polytechnic, Ibadan, Nigeria,
oadepojutolulope@yahoo.com

Abstract
The study investigated the relationship between institutional factors and use of institutional repositories by lecturers in federal universities in Nigeria with a view to establish the influence of institutional factors on the use of institutional repositories. The survey research design was adopted for the study. Questionnaire was used as the instrument of data collection from 540 lecturers that constitute the sample for the study. Findings from the study revealed organizational culture, environmental and motivational factors as the dominant and prevalent institutional factors that supports research in federal universities in Nigeria just as Inaugural lectures, Seminar papers, Photographs, Notebooks, Illustrations and Drawings and Newspapers were the most common types of information resources available in the institutional repositories of federal universities in Nigeria. Major purposes of using of institutional repositories by the lecturers are for preparing seminar/lecture notes, writing papers/proposals, seminars presentations, research works and preparing for lecture series. The study established; occasional use of institutional repositories by the lecturers and a significant positive relationship between institutional factors and use of institutional repositories such that an improvement in institutional factors would lead to increase in the use of institutional repositories. The study recommended the formulation and implementation of adequate university-wide policy that would encourage and supports the use of institutional repositories by the universities' management.

Keywords: Institutional factors, use of institutional repositories, Lecturers, Federal universities, Nigeria

Introduction

Institutional repositories (IRs) are key to academic, research and community service of lecturers in universities and other higher educational institutions because they serve as the hub of information resources for effective delivery of the lecturers' schedule of duties. The main objective of establishing institutional repositories is to showcase institutional research output to the outside world. An institutional repository (IR) 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 as well as storing and preservation of other digital assets, including unpublished literature for long term use.

Institutional repositories have therefore witnessed a paradigm shift in scholarly communications that increases the visibility and add more prestige to the institutions. According to Leila and Mina (2018), the

benefits of IRs can be summarised in two categories which are open access to scholarly publication and long-term preservation of the scholarly content. Institutional repositories provide tools that assist lecturers in disseminating their work to audiences within and outside the institution as well as enabling information seekers to find faculty and student work more easily by organising and indexing it thereby 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 content storage of institutional repositories and use by lecturers in these universities. Bamigbola (2017) submitted that content storage and utilisation 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 which 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) reported 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 repository, including decision on issues such as how scholarly articles by academics, students project works, theses and dissertations, newsletters, inaugural lectures from the university are to be uploaded into the system. Researches 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 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. Ezema and Okafor (2015) highlighted 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 the use of institutional repositories not only in developing countries but Nigeria in particular. 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.

Meanwhile, studies have shown that most institutions in Nigeria do not provide requisite institutional supports for lecturers while some lecturers at the same time do not avail themselves of the opportunities of attending staff development programs needed to engage in learning and research activities (Alhija and Majdob, 2017; Bamigbola, 2017). Aina and Adekanye (2013) and Bamigbola (2017) averred that lack of relevant and adequate skills on the part of some lecturers to gaining access to the intellectual output content of other lecturers and researchers in terms of print and non-print materials, through institutional repositories, could also undermine the use of institutional repositories. Institutional factors refer to elements that affect the use of institutional repositories. They are considered as external and internal environment of an organisation which influences work processes which include support programs that an institution develops for faculty members, practice and standards (Dixon, 2015).

Mantikayan and Abdulgani (2018) reported that institutional factors like training, staff support, technical support and guidance, resources, awards, workload, research culture, tenure and promotion, financial awards, performance standards, peer and social recognition, and leadership factors like appreciation and orientation can influence the use of institutional repositories. In the same vein, Veliu, Manxhari, Demiri and Jahaj (2017) submitted that leadership is one of the institutional factors that influence the use of institutional repositories. The notion of transformational leadership style can therefore be interpreted as a leadership behaviour that changes and inspire followers to do work beyond self-interest for the good of the organisation by promoting

intellectual development, self-confidence, team spirit and enthusiasm among followers, thus encouraging followers to focus more on collective well-being to achieve organisational goals (Aydin, 2013).

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 to institutional repositories of their respective universities. However, confusion about copyright issues discourages them to participate in it. It has also been emphasised that for an institutional repository to successfully serve its full potential, its constituents should not only be aware of its existence but understands its value, and willing to contribute their scholarship products. Literature has shown that despite the numerous advantages of institutional repositories, some institutional factors can hinder their full utilisation in developing countries, like Nigeria (Bamigbola, 2017).

In the university, institutional factors are considered of utmost importance in institutional governance. For example, university research policies, organisational structure, funding, motivational factors, environmental factors, research collaboration, research rules and ethics and intellectual property management (patents, licenses, copyrights), among others could influence the use of institutional repositories. For instance, the implementation of research policy has to do with the movement of ideas and innovations from the academic sector to the society and involves series of policies geared towards the translation of research outputs into solving societal problems. To some scholars like Awan and Tahir, (2015); Manu (2015); Kasule, (2016), work environment is an important factor that influence lecturers' use of institutional repositories. The study of Awan and Tahir (2015) found that factors like supervisory support, relation with co-workers, training and development at workplace are helpful in developing a working environment that has positive impact on lecturers' interest in the activities of their institutions. This submission was corroborated by the report of Nzoka (2015) study. Institutional factors include provision of facilities and materials plus establishment of qualified human resources which are indices that determine productivities of lecturers in the university environment. Nzoka (2019).

Empirical evidence, Bamigbola (2018) and observations have revealed functionality of institutional repositories with relevant indigenous and local contents (resources), accessibility to and use of institutional repositories and infrastructural facilities as having the tendency to influence research productivity of lecturers in federal universities in Nigeria. Studies such as Bamigbola, (2018) affirm that supportive institutional factors could have a positive influence on the use of institutional repositories 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 institutional factors that determine the use and/or non-use of institutional repositories by lecturers in federal universities in South-West, Nigeria.

Objective of the study
The broad objective of the study is to investigate the influence of institutional factors on the use of institutional repositories by lecturers in federal universities in South-West, Nigeria. The specific objectives of the study are to:
1. find out the prevalent institutional factors for research in federal universities in Nigeria
2. identify the types of information resources available in the institutional repositories of federal universities in Nigeria
3. establish the purpose of use of institutional repositories by lecturers in federal universities in Nigeria
4. ascertain the frequency of use of institutional repositories by lecturers in federal universities in Nigeria;
5. find out the relationship between institutional factors and use of institutional repositories by lecturers in federal universities in Nigeria

Research questions
The following research questions were answered in the study:
1. What are the prevalent institutional factors for research in federal universities in Nigeria?
2. What are the types of information resources available in the institutional repositories in federal universities in Nigeria?

3. For what purposes do lecturers in federal universities in Nigeria use institutional repositories?
4. What is the frequency of use of institutional repositories by lecturers in federal universities in Nigeria?

Hypothesis
This null hypothesis was tested at 0.05 level of significance:
There is no significant relationship between institutional factors and use of institutional repositories by lecturers in federal universities in Nigeria.

Research Methodology
The research design that was adopted for this study is the survey research design of the ex post facto type. The target population for this study comprised all lecturers in the federal universities selected from the six geopolitical zones of Nigeria totaling 7,591. One university was selected from each of the six geopolitical zones in Nigeria. According to the National Universities Commission (NUC) (2021), there are 43 federal-owned universities in Nigeria, (NUC Bulletin, 2021). These universities were categorised into five generations based on their years of establishment. In selecting the sample size for this study, the multi-stage sampling procedure was adopted. Purposive sampling technique was adopted in selecting one federal university from each of the six geo-political zones in Nigeria which belong to the first generation of universities in Nigeria and with functional institutional repositories. Meanwhile, in the zones without a first-generation university, the oldest university with functional institutional repositories were selected. Thus, the universities selected were: University of Ibadan, Oyo State (South-West); Ahmadu Bello University, Zaria, Kaduna State (North-Central); 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). Purposive sampling technique was used to select 5 faculties that are commonly available in all the selected universities. Thus, Faculties of Science, Agriculture, Social Science, Law and Arts were selected for the study. These faculties are popular ones in the universities and with vibrant academic programmes. Simple random sampling technique was used to select one department in the selected faculties. Therefore, Departments of Computer Science (Faculty of Science), Animal Science (Faculty of Agriculture), Sociology (Faculty of Social Science), Law (Faculty of Law) and History (Faculty of Arts) were selected. The total enumeration method 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 data collected were collated and analysed with the use of descriptive and inferential statistics. Research questions 1-4 were answered using descriptive statistics of frequency, percentages, mean and standard deviation. In testing the hypothesis, Pearson Product Moment Correlation was used.

Data Analysis and Interpretation of Results

Research Questions 1: What are the prevalent institutional factors for research in federal universities in Nigeria?

Table 1: Frequency Distribution of Respondents View on the Prevalent Institutional Factors for Research in Federal Universities in Nigeria (n=540)

S/N	Institutional factors	SA	A	D	SD	$\overline{\chi}$	Std. Dev	Decision
	Organizational Culture							
1	Work process and employee management is averagely okay	137 25.4%	215 39.8%	125 23.1%	63 11.7%	2.79	.953	prevalent
2	Work ethics is major factor that aids research productivity	114 21.1%	240 44.4%	130 24.1%	56 10.4%	2.76	.901	prevalent
3	Organisational climate in my institution is not conduce	117 21.7%	237 43.9%	120 22.2%	66 12.2%	2.75	.931	prevalent
4	Leadership style of my institution is exemplary	106 19.6%	217 40.2%	140 25.9%	77 14.3%	2.65	.952	prevalent
5	Institutional research culture in my organization is good	104 19.3%	216 40.0%	144 26.7%	76 14.1%	2.64	.947	prevalent
	Weighted Mean					2.71	.936	prevalent
S/N	Environmental Factors	SA	A	D	SD	$\overline{\chi}$	Std. Dev	Rank
7	There is access to research networks in my institution.	136 25.2%	191 35.4%	134 24.8%	79 14.6%	2.71	1.00	prevalent
8	Research environment in my institution is very conducive	110 20.4%	200 37.0%	166 30.7%	64 11.9%	2.66	.93	prevalent
9	There is adequate office space and facilities in my institution	93 17.2%	213 39.4%	175 32.4%	59 10.9%	2.63	.89	prevalent
10	My institution encourages and support creativity	89 16.5%	221 40.9%	168 31.1%	62 11.5%	2.62	.89	prevalent
11	There is opportunity for training and retraining to keep abreast of current development in my institution	85 15.7%	218 40.4%	165 30.6%	72 13.3%	2.59	.90	prevalent
	Weighted Mean					2.64	.92	prevalent
S/N	Motivational Factors	SA	A	D	SD	$\overline{\chi}$	Std. Dev	Rank
12	I have access to Academic leaders in research cluster	99 18.3%	256 47.4%	123 22.8%	62 11.5%	2.73	.89	prevalent
13	I have access to mentoring system and research assistance	104 19.3%	199 36.9%	159 29.4%	78 14.4%	2.61	.95	prevalent
14	There are opportunities for research collaboration	85 15.7%	216 40.0%	173 32.0%	66 12.2%	2.59	.89	prevalent

S/N		SA	A	D	SD	$\bar{\chi}$	Std. Dev	Rank
15	There is a good reward system in my organization for outstanding performance	69 12.8%	246 45.6%	152 28.1%	73 13.5%	2.58	.87	prevalent
16	There is good reward and incentive system in my institution such as traveling expenses for research activities.	83 15.4%	185 34.3%	162 30.0%	110 20.4%	2.45	.98	prevalent
	Weighted Mean					2.59	.91	prevalent
S/N	University Policy	SA	A	D	SD	$\bar{\chi}$	Std. Dev	Rank
17	My university has institutional policies for research activities	87 16.1%	220 40.7%	148 27.4%	85 15.7%	2.57	.940	prevalent
18	There is a unit dedicate to coordinate research activities in my institution	105 19.4%	171 31.7%	164 30.4%	100 18.5%	2.52	1.00	prevalent
19	My university have annual training and research activities for lecturers	82 15.2%	189 35.0%	135 25.0%	134 24.8%	2.41	1.02	prevalent
20	My university publishes annual research reports.	73 13.5%	202 37.4%	127 23.5%	138 25.6%	2.39	1.01	prevalent
21	Every department in my university must submit annual research report of lecturers to the research coordinating unit.	78 14.4%	193 35.7%	131 24.3%	138 25.6%	2.39	1.02	prevalent
	Weighted Mean					2.45	.99	
S/N	Funding	SA	A	D	SD	$\bar{\chi}$	Std. Dev	Rank
22	There is appropriate support for research collaboration.	101 18.7%	213 39.4%	111 20.6%	115 21.3%	2.56	1.024	prevalent
23	I have access to research fund any time every time.	72 13.3%	190 35.2%	162 30.0%	116 21.5%	2.40	.969	prevalent
24	Institutional funding of research reports is regular in my institution	84 15.6%	184 34.1%	121 22.4%	151 28.0%	2.37	1.052	prevalent
25	There is provision of access to international funding with condition attached	97 18.0%	160 29.6%	132 24.4%	151 28.0%	2.36	1.075	prevalent
26	There also provision for local grants which I have access severally	75 13.9%	196 36.3%	117 21.7%	152 28.1%	2.36	1.036	prevalent
	Weighted Mean					2.41	1.03	prevalent
	Overall Weighted Mean					2.56		prevalent

Sources: Researcher's field-report, 2021

Decision Rule: 0.1-1.0=Not prevalent, 1.1-2.0=Lowly prevalent, 2.1-3.0= Prevalent, 3.1-4.0= Highly prevalent

Table 1 presents the result of institutional factors for research available in respondents' institutions and it shows that the respondents affirmed that there are institutional factors to support research activities in the institutions surveyed with mean value of 2.56. The breakdown of specific institutional factors availability was also investigated. On the organizational culture prevalent in federal universities in Nigeria, the result shows that 66.2% (2.79±0.95) of the respondents agree with the fact that work processes and employee management is averagely okay, 65.5% (2.76±0.90) agree that work ethics is major factor that aids research productivity and 59.6% (2.65±0.95) agree with the fact that leadership style of their institution is exemplary. It can be deduced from the result that the organizational culture in federal universities surveyed was supportive of research activities with mean value of 2.71. The implication to be drawn from this result is that Organizational culture in federal universities in Nigeria is conducive for and supportive of research activities of lecturers.

On the environmental factors prevalent in federal universities in Nigeria, the result shows that most of the respondents agree that; there is access to research networks in their institution, research environment in their institution was very conducive and that there was opportunity for training and retraining to keep abreast of current development in their institution with response rates of 60.6% (2.71±1.00), 57.4% (2.66±0.93) and 66.1% (2.59±0.90) respectively while 39.4% were disagree and rated with (2.71±1.00). Overall, the result reveals that the lecturers in federal universities in Nigeria affirmed conducive environmental factors for research activities as shown with the mean value of 2.64. It can therefore be deduced from the results that lecturers in the federal universities surveyed are comfortable with the available environmental factors for research activities.

Also, on motivational factors prevalent in federal universities in Nigeria, result from the study show that 65.7% (2.73±0.89) agree that they have access to academic leaders in research cluster while 58.4% (2.58±0.87) and 56.2% (2.61±0.95) agree that that there is a good reward system in their organization for outstanding performance and that they have access to mentoring system and research assistance respectively. The overall result of motivational factors availability in the institutions surveyed revealed that the respondents surveyed agree that there are supportive motivational factors with overall mean value of 2.59. It can therefore be deduced from the results that there are supportive motivational factors in federal universities in Nigeria.

On the university policy prevalent in federal universities in Nigeria, the overall result reveals that the respondents affirmed that there is supportive university policy in federal universities in Nigeria with mean value of 2.45. The breakdown of the components of the university policy reveals that 56.8% (2.57±0.94), 50.1% (2.52±1.00) 50.9% (2.39±1.01) agreed that; their university has institutional policies for research activities, there is a unit dedicated to coordinate research activities in their institution and that university publishes annual research reports respectively. The implication to be drawn from the result is that there is university policy that is supportive of research activities in federal universities in Nigeria. The mean and standard deviation used corroborated this claim. This was shown with the weighted average mean and standard deviation score of (Weighed Average mean =2.45, Grand mean=2.50). There was low university policy in federal universities in Nigeria.

The results on funding of research activities in federal universities reveals that the respondents affirmed the funding of research activities in their institutions with mean value of 2.41 using the decision rule. The breakdown of the components of the funding university reveals that 58.1% (2.56±1.02), 54.2% (2.36±1.03) and 49.7% (2.37±1.05) agreed that; there is appropriate support for research collaboration, there is provision for local grants and that there is regular institutional funding for research respectively. The implication to be drawn from the result is that there is funding for research activities in federal universities in Nigeria. The mean and standard deviation corroborated this claim. This was shown with the weighted average mean and standard deviation score of (Weighed Average mean =2.41, Grand mean=2.50).

Research Questions 2: What types of information resources are available in the institutional repositories in federal universities in Nigeria?

Table 2: Frequency Distribution of Respondents' View on the Types of Resources (n=540)

S/A	Types of Resources Available	Yes	No	$\overline{\chi}$	Std. Dev
1	Inaugural lectures	505 (93.5%)	35(6.5%)	1.94	.240
2	Seminar papers	506 (93.7%)	34(6.3%)	1.94	.243
3	Photographs	507 (93.9%)	33 (6.1%)	1.94	.240
4	Notebooks	506 (93.7%)	34 (6.3%)	1.94	.243
5	Illustrations and Drawings	504 (93.3%)	36 (6.7%)	1.93	.250
6	Newspapers	497 (92.0%)	43(8.0%)	1.92	.271
7	Bulletins	499 (92.4%)	41 (7.6%)	1.92	.265
8	Posters	499 (92.4%)	41 (7.6%)	1.92	.265
9	Maps	497 (92.0%)	43 (8.0%)	1.92	.271
10	Charts	495 (91.7%)	45 (8.3%)	1.92	.277
11	Patents	497 (92.0%)	43 (8.0%)	1.92	.271
12	Guest lecture series	404 (91.5%)	36(8.5%)	1.91	.279
13	Faculty lectures	487 (90.2%)	52(9.8%)	1.90	.298
14	Conference Proceedings	488 (90.4%)	52 (9.6%)	1.90	.295
15	Realia (Real objects)	485 (89.8%)	55 (10.2%)	1.90	.303
16	Models	478 (88.5%)	62 (11.5%)	1.89	.319
17	Banners	482 (89.3%)	58 (10.7%)	1.89	.310
18	Textbooks	473 (87.6%)	67 (12.4%)	1.88	.330
19	Theses and Dissertations	472 (87.4%)	68(12.6%)	1.87	.332
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
	Weighted Mean			1.89	.296

Sources: Researcher's field-report, 2021

Table 2 reveals the types of information resources available in the institutional repositories in federal universities in Nigeria. Findings show that 93.5%, agree that Inaugural lectures, Seminar papers, Photographs and Notebooks are the most types of information resources available while 6.5% disagreed with a rate (1.94±0.24). In addition, 93.3% agreed that Illustrations and Drawings are types of information resources available while 6.7% of the respondent disagreed with a rate of (1.93±0.25). Also, Table 2 shows that 92.0%, agreed that Newspapers are type of information resources available while majority 8.0% were disagreed and rated (1.92±0.27). The results of the findings show that majority of the respondents agreed that there were different types of information resources available in the institutional repositories in federal universities in Nigeria. The mean and standard deviation used corroborate this claim. This was shown with the weighted average mean and standard deviation score of (Weighed Average mean =1.89, Grand mean=1.50).

Research questions 3: For what purpose do lecturers in federal universities in Nigeria use institutional repositories?

Table 3: Frequency Distribution of Respondents' View on the Purpose of Use of Institutional Repositories by Lecturers in Federal Universities in Nigeria (n=540)

S/A	Purposes	SA	A	D	SD	$\overline{\chi}$	Std. Dev	Rank
	I use IR for Preparing seminar/lecture notes	70 13.0%	223 41.3%	161 29.8%	86 15.9%	2.51	.911	Agree
1	I use IR for Writing papers/proposals	70 13.0%	226 41.9%	145 26.9%	99 18.3%	2.49	.937	Agree
3	I use IR for Seminars presentations	55 10.2%	238 44.1%	147 27.2%	100 18.5%	2.46	.908	Agree
4	I use IR for Research works	70 13.0%	183 33.9%	187 34.6%	100 18.5%	2.41	.935	Agree
5	I use IR for Preparing for lecture series	59 10.9%	186 34.4%	177 32.8%	118 21.9%	2.34	.940	Agree
6	I use IR for Developing course materials/notes	50 9.3%	184 34.1%	138 25.6%	168 31.1%	2.21	.989	Agree
	I use IR for Writing book reviews	59 10.9%	151 28.0%	148 27.4%	182 33.7%	2.16	1.015	Agree
7	I use IR for Grants write up	41 7.6%	149 27.6%	182 33.7%	168 31.1%	2.12	.937	Agree
9	I use IR for Obtaining general knowledge	58 10.7%	131 24.3%	134 24.8%	217 40.2%	2.06	1.036	Agree

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 3 reveals the purposes which lecturers in federal universities in Nigeria use institutional repositories for. Findings show that 54.3%, agree that they use IR for Preparing seminar/lecture notes while 45.7% disagreed with a rate of (2.51±0.91). In addition, 54.9% agreed that they use IR for Writing papers/proposals while 45.1% of the respondent disagreed with a rate of (2.49±0.93). Also, the results shows that 54.3%, agreed that they use IR for Seminars presentations while 45.7% disagreed with a rate of (2.46±0.90), 53.1% disagreed that they use IR for Research works while 46.9% of the respondents agree rated with (2.41±0.93). 54.7%, disagreed that they use IR for Preparing lecture series while 45.3% were disagreed and rated (2.34±0.94), also, 56.7% disagreed that they use IR for Developing course materials/notes while 43.3% of the respondents agree rated with (2.21±0.98). In addition, the result shows that 61.1%, disagreed that they use IR for Writing book reviews while 38.9% disagreed with a rate of (2.16±1.01) and etc. The results further shows that majority of the respondents agreed that there is no purposeful usage of institutional repositories by lecturers in federal universities in Nigeria. The mean and standard deviation used corroborate this claim. This was shown with the weighted average mean and standard deviation score of (Weighed Average mean =2.30). Overall, the major purposes of use of institutional repositories by lecturers in federal universities in Nigeria are for: preparing seminar/lecture notes, writing papers/proposals, seminars presentations, research works and preparing for lecture series.

Research questions 4: What is the frequency of use of institutional repositories by lecturers in federal universities in Nigeria?

Table 4: Frequency Distribution of Respondents View on the Frequency of Use of Institutional Repositories by Lecturers in Federal Universities in Nigeria: Key (DA=5), Daily (WE= 4) Weekly, (MO=3), Monthly, (OC=2) Occasionally, (NU=1) Not used at all (n=540)

S/A	IR Resources	DA (%)	WE (%)	MO (%)	OC (%)	NU (%)	$\bar{\chi}$	Std. Dev
	Book chapters	110(20.4)	120(20.4	76(14.1)	140(25.9)	94(17.4)	3.02	1.41
	Newsletters	107(19.8)	85(15.7)	88(16.3)	165(30.6)	95(17.6)	2.90	1.39
	Patents	119(22.0)	75(13.9)	59(10.9)	171(31.7	116(21.5	2.83	1.47
	Journals	100(18.5)	64(11.9)	110(20.4)	170(31.5)	96(17.8)	2.82	1.36
	Illustrations and Drawings	108(20.0)	96(17.8)	46(8.5)	148(27.4)	142(26.3	2.78	1.50
	Newspapers	112(20.7)	42(7.8)	104(19.3	167(30.9)	115(21.3	2.76	1.41
	Conference Proceedings	82(15.2)	55(10.2)	129(23.9	202(37.4)	72(13.3)	2.76	1.25
	Theses and Dissertations	74(13.7)	89(16.5)	96(17.8)	182(33.7)	99(18.3)	2.74	1.31
	Book of Abstracts	77(14.3)	58(10.7)	108(20.0)	217(40.2)	80(14.8)	2.69	1.25
	Notebooks	78(14.4)	100(18.5)	72(13.3)	139(25.7)	151(28.0	2.66	1.42
	Charts	92(17.0)	71(13.1)	65(12.0)	178(33.0	134(24.8	2.65	1.41
	Seminar papers	73(13.5)	79(14.6)	71(13.1)	212(39.3)	105(19.4	2.64	1.31
	Textbooks	50(9.3)	80(14.8)	120(22.2	208(38.5)	82(15.2)	2.64	1.17
	Faculty lectures	59(10.9)	74(13.7)	94(17.4)	236(43.7)	77(14.3)	2.63	1.20
	Guest lecture series	52(9.6%)	82(15.2)	103(19.1	198(36.7)	105(19.4	2.59	1.23
	Posters	64(11.9)	64(11.9)	109(20.2	192(35.6	111(20.6	2.59	1.26
	Bulletins	41(7.6)	95(17.6)	85(15.7)	208(38.5)	111(20.6	2.53	1.21
	Inaugural lectures	45 (8.3)	72(13.3)	84(15.6)	251(46.5)	88(16.3)	2.51	1.16
	Maps	68(12.6)	69(12.8)	63(11.7)	197(36.5)	143(26.5	2.49	1.33
	Banners	54(10.0)	77(14.3)	72(13.3)	193(35.7)	144(26.)	2.45	1.29
	Realia (Real objects)	52(9.6)	65(12.0)	84(15.6)	206(38.1)	133(24.6	2.44	1.24
	Models	43(8.0)	75(13.9)	78(14.4)	200(37.0)	144(26.7	2.39	1.23
	Photographs	36(6.7)	57(10.6)	80(14.8)	224(41.5	143(26.5	2.29	1.16
	Weighted Mean						2.64	
	Grand Mean						60.8	

Sources: Researcher's field-report, 2021

Table 4 revealed the frequency of use of institutional repositories by lecturers in federal universities in Nigeria. The study shows that 83.6%, of the respondents frequently use book chapters while 17.4% do not

book with a rate of (3.02±1.41). In addition, 54.9% of the respondents frequently use newsletters while 17.6% of the respondent do not use it with a rate of (2.90±1.39). Also shows that 54.3%, frequently used patents while 21.5% did not used and rated (2.83±1.47). The results of the study further shows that majority of the respondents agreed that lecturers frequently use institutional repositories in federal universities in Nigeria. The mean and standard deviation used corroborate this claim. This was shown with the weighted average mean and standard deviation score of (Weighed Average mean =2.64, Grand mean=2.50).

Decision Rule (Using Test of Norm):
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

Table 5: Test of Nom showing the frequency of use of institutional repositories by lecturers in federal universities in Nigeria

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

Table 5 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.

Testing of Null Hypothesis
There is no significant relationship between institutional factors and use of institutional repositories by lecturers in federal universities in Nigeria

Table 6: Summary of PPMC Showing the Relationship Between Institutional Factors and Use of Institutional Repositories by Lecturers in Federal Universities in South-West, Nigeria

Variable	Mean	SD	N	r	Sig.	Remark
Institutional factors	59.71	10.99				
Use of Institutional Factors	60.17	12.63	540	0.533	0.000	Significant

Table 6 above shows that there is a positive significant relationship between institutional factors and use of institutional repositories by lecturers in federal universities in South-West, Nigeria *(r = 0.53; p<0.05).* Therefore, the null hypothesis is rejected. The positive relationship implies that an improvement in institutional factors brings about an improvement in the use of institutional repositories by lecturers in federal universities in South-West, Nigeria.

Discussion of Findings
It was revealed through the study that organizational culture, motivational factors, environmental factors, university policy and funding are institutional factors prevalent in federal universities in Nigeria. Organisational culture, environmental factors and motivational factors are the most prevalent institutional factors in the surveyed federal universities. This finding supports that of Uwizeye, Karimi, and Thiong'o, (2021) who have established that institutional factors are major determinants of achieving goals and objectives of every organization including tertiary institutions of learning. It is also in tandem with the work of Feyera, Atelaw and Hassen (2017) that discovered the relationship between performance of lecturers and prevalent institutional factors are close.

On the types of resources available in the institutional repositories of federal universities in Nigeria, the findings of the study revealed inaugural lectures, seminar papers, photographs and notebooks as the most dominant types of information resources available in the institutional repositories of federal universities in Nigeria. This finding supports that of Sanni (2018) which reported grey literature such as unpublished research reports, theses and dissertations, seminar and conference papers and Kakai, (2018) which

highlighted e-prints, technical reports, journals, theses and dissertations, data sets, and teaching materials as major types of resources available in institutional repositories of universities. 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 is also affirming the assertion by Onyebinama, Anunobi, and Onyebinama (2021) that the rich content could be available in the institutional repositories since faculty members are the major depositors of the content. 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).

Findings from the study further revealed the major purposes of using institutional repositories by lecturers as including, preparation of seminar/lecture notes, writing of papers/proposals, seminars presentations, research works and preparation for lecture series. This corroborates Alegbeleye and Oyewole (2017) and Kakai (2018) who reported that institutional repositories have become important in scholarly communication, academic and research activities, institutional visibility, university ranking, feasible foundation of institutional knowledge management.

On the frequency of use of institutional repositories, this study found that the results of established occasional use of institutional repositories by most of the lecturers. This supports the findings of several authors that established that institutional repositories have been fairly accepted by faculty for research purposes. For instance, Bamigola and Adetimirin (2017) made a conclusion that development of IRs in Nigerian universities is on the increase and awareness of IR is on the increase. The test of hypothesis revealed that institutional factors have positive significant relationship with research productivity of lecturers in federal universities in south-west Nigeria. This discovery corroborated the work of Nguyen, Nguyen and Dao (2021) that established strong correlation of institutional factors with the use of institutional repositories by academics in higher educational institutions.

Conclusion
The study investigated the relationship between institutional factors and use of institutional repositories by lecturers in federal universities in Nigeria with a view to establish the extent to which institutional factors influenced the use of institutional repositories by lecturers in universities in Nigeria. Organisational culture, environmental factors and motivational factors were found to be the dominant and prevalent institutional factors to support research activities in federal universities in Nigeria. Inaugural lectures, seminar papers, photographs, notebooks, illustrations and drawings are the types of information resources commonly available in the institutional repositories of federal universities in Nigeria. Also, 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. Occasional use of institutional repositories by the lecturers in federal universities in Nigeria was established and book chapters, newsletters, patents, journals, illustrations and drawings, newspapers, conference proceedings, theses and dissertations, book of abstracts, notebooks, charts, seminar papers and textbooks are regularly used by the lecturers in federal universities in Nigeria. A significant positive relationship was established between institutional factors and use of institutional repositories such that an improvement in institutional factors would positively improve the use of institutional repositories by the lecturers. It is evident that favourable institutional factors such as organisational culture, motivational and environmental factors are important in improving the use of IRs by the lecturers. Therefore, it is expected that improvement in the university policy and adequate funding for research in the universities would lead to improved use of institutional repositories.

Recommendations
The following recommendations are proffered on the basis of this study's findings:
1. University management should ensure the formulation and implementation of adequate university-wide policy that would encourage and supports the use of institutional repositories. Such policy should be one that can be easily translated to reality and devoid of any cumbersomeness.

2. The university management should organize for the lecturers regular training and retraining programme and workshops on the use of institutional repositories to equip them with the relevant and needed skills.
3. The university management should ensure ease of access to the IRs by the lecturers
4. Infrastructure to support effective functioning of IRs in the universities such as hardware stability and regular maintenance, faster internet access and stable power supply should be provided by the university management. This will improve access to IRs resources for lecturers' use.

References

Adeoti J.O. (2008) University-industry linkage and the challenges of creating developmental Universities in Nigeria. *Towards Quality in African Higher Education,* 375-387.

Aderibigbe, I. A. I. (2017). Relationship between Employee Motivation and Productivity among Bankers in Nigeria. *Journal of Economics*, 8(1), hub.tw/http://dx.doi.org/10.1080/09765239.2017.1316964 . Diakses 27 November 2019

Adeyemi, J. A. A., H. D., Akinlade, O. O., and Bribena, E. I (2017). Nigerian institutional repositories: Opportunities and barriers. *Academia Journal of Educational Research* 5(10): 297-305

Ahmad, P., Aqil M and Siddique, M.A .(2012); Open institutional repositories in Saudi Arabia: Present and future prospects. *International Journal of Digital Library Services,* 2(2), 58-68.

Ahmad, P., Aqil M and Siddique, M.A .(2012); Open institutional repositories in Saudi Arabia: Present and future prospects. International Journal of Digital Library Services, 2(2), 58-68.

Aina, J. A. and Adekanye, E. A. (2013). Audio Visual Resources Availability and Use for Library Services among Colleges of Education in Lagos State, Nigeria; *International Journal of Library and Information Science*, 5 (10)

Amini-Philips, C. and Okonmah, A.N. (2020) Lecturers Workload and Productivity in Universities in Delta State*. International Journal of Education, Learning and Development*, Vol .8(3) 111-136

Andrew W. M. (2018); The role of Institutional Repositories in making lost or hidden cultures accessible, a study across four African University Libraries; *Library Philosophy and Practice*; e-journal No. 2011.

Anuradha, K.T. (2013). Design and development of institutional repositories: a case study. *The International Information. Library Review*, 37(3), 169-178

Awan, G. S and Tahir, M.T. (2015). Impact of working environment on employees productivity: A case study of Banks and Insurance companies in Pakistan. *European Journal of Business and Management*, 7(1): 58-6.

Bamigbola, A. A and 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.

Bardakci, S., Arslan, O. and Unver, T.K. (2017). How scholars use academic social networking services, *Information Development*, 1-12.

Batool, Hussain Chi and Ahmad, F. (2018); identification of institutional factors of research Productivity of public university teachers*; Journal of Educated research*, Department of Education, IUB, Pakistan, 21(2).

Caroline A. O. and Flora I. O. (2017) Sustenance of Institutional Repositories in Nigerian University Libraries: Issues, Prospects and Challenges. *International Journal of Applied Technologies in Library and Information Management.* 3(1)-(II*).*

Cheng-Cheng Yang, J. (2018): A study of Factors Affecting University Professors' Research output: Perspectives of Taiwanese Professors: CORE Publications download on 29th March, 2021 Clute Institute Journal download from https://clutejournal. Com/index. php.TLC/article/download/9968/1069.

Chepkorit, R. K. (2018); Effect of Academic Staff qualification on Research self-efficacy and Research productivity through Research culture implementation; 0128 - 2603

Cocal, C. J., Cocal, E. J. and Celino, B. (2017); Factors limiting Research Productivity of Faculty members of a state University; The Pangasinan State University, Alaminos City Campus Case; Asia Pacific Journal of Academic Research in Social Scciences; Vol. 2.

Crow, R. (2018). The Case for Institutional Repositories: a SPARC Position Paper, Retrieved April 26, 2018 from http://www.arl.org/sparc/bm~doc/ir_final_release_102.pdf

Egonmwan, J.A. (2019). Public Policy Analysis, Concepts, and Application. Benin City, in Nigeria. Company.

Ifeanyi J. Ezema and Victoria N. Okafor (2015) Open Access Institutional Repositories in Nigeria Academic Libraries. Advocacy and issues in Scholarly Communication. *Journal of Library Collections, Acquisitions and Technical Services* 39:(3-4)

Ilesanmi, C. T., (2017); Web Presence Analysis of Intellectual Outputs on the Institutional Repository of University of Ibadan, Nigeria; a paper presentation at the Global Education Network Conference; University of Cape Coast, Ghana on 23rd October — 26th October, 2017.

Jameel, A. S. and Ahmad, A. R. (2020): Factors Impacting Research Productivity of Academic Staff at the Iraq. *Higher Educational Business Education Journal*: 13(1), 108 - 126

Johnson, R. K (2020) Institutional Repositories: Partnering with Faculty to Enhance Scholarly Communication. D-Lib Magazine, Vol.8 No.11. Available at: http://www.dlib.org/dlib/november02/johnson/11johnson.html.

Joseph K. F., Wilhemina L., Michael E., Betty A., Marlene H. (Dr.) (2017) — Institutional Repositories and heritage materials in selected institutions within three African Countries; *Library Philosophy and practice*: e-journal No: 1603.

Kasa, M G, Soyemi D O, and Opeke R. o. (2020). Authorship Patterns in research Output of Faculty members in university-based research institutes in Nigeria. *International Journal of Library Science,* 9(2): 34-39.

Okoronia, F. N. and Abioye A.A. (2017); Institutional Repositories in University Libraries in Nigeria and the Challenge of Copyright. *Advances in Social Sciences Research Journal,* 4(5).

Salman, S., Kausar, T. and Furgan, M. (2018). Factors Affecting Research Productivity in Private Universities of LAHORE; A Discriminant Analysis, Pakistan Business Review, 2000.