



Provision of Open Access Web Links for Postgraduate Students by Private University Libraries in Nigeria

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Abstract: The purpose of this study was to examine the provision of open access web links for postgraduate students by private university libraries in Nigeria. A descriptive survey research design was used for the study. The population of the study (603) consisted of all postgraduate students in three Nigerian private universities, irrespective of their courses of study. A multi-stage sampling technique using 20% of users in each stage or stratum was used to select 150 postgraduate students for the study. The researcher developed a questionnaire titled “Availability of Open Access Website Links Questionnaire” (POAWLQ) and an observation checklist, which were used to collect data for the study. A total of 150 copies of the questionnaire were distributed to respondents, out of which 143 copies were returned and found to be correctly filled. This gave a response rate of 95.3%. The data collected were analyzed using Mean (X) and Standard Deviations to answer the research questions. The major findings of the study were that the overall availability of open access linkages in the libraries was poor. Also, the general utilization of the limited available open access web links in the library is low. Based on the findings, it was recommended that libraries should endeavour to provide links to various open access websites on their library webpage, the library should often organize seminars and workshops on the availability of open access links on their library’s webpage, the need to provide power backup to enhance stable Internet service, in-house training for library staff to equip them towards assisting users in maximizing these linkages provided by the library, among others.

Keywords: Private University, Postgraduate Student, University Library, Open Access Resources.

Introduction

The concept of private university connotes different meaning to different authors; however, according to Gabriel (2013), a private university is one established and managed by entities other than a state or federal government which may include those run by faith-based organizations, individuals, and community development associations, among others. Gabriel further stressed that in Nigeria, faith organizations, group of individuals and individuals largely constitute proprietorship of private universities. Private university education was first articulated in 1983 following a pronouncement of the Supreme Court of Nigeria that it was constitutional to allow individuals to establish private universities. In 1999, President Olusegun Obasanjo rekindled the issue of private participation in University education to complement the effort of the government, which led to the establishment of few private universities where both undergraduate and postgraduate education programmes were run.

Postgraduate education, in the submission of Asogwa, Wombo and Ugwuoke (2014) involves learning and studying for degrees, professional or academic certificates or other qualifications for which a first or Bachelor's degree generally is required and it is normally considered to be part of higher education. Pertinently, those involved in postgraduate education, as the name implies, should also be postgraduate students.

Nevertheless, a university library is an intellectual power house where these students are expected to be 'baked' and it houses all sorts of materials including books and non-book

materials. It is also an important agent in the pursuit of academic excellence in higher institutions. Its main goal is to support the objective of the host institution, which has to do with learning, teaching, research and other services. A university library is also called an 'academic library'. This is why Susan and Skinner (2009) put it that an academic library which also is a university library is attached to a higher educational institution which serves two complementary purposes to support the school's curriculum, and to support the research of the university faculty and students.

However, free exchange and use of information especially research based information forms the basis for economic, cultural, social and scientific development, yet this has been compromised by restricted access model of publishers and the dependency of researchers on research works published in qualitative but restricted access journals (Canada, 2009). Canada further opined that Open Access is capable of fostering information and knowledge sharing within research, educational and scientific communities especially in traditionally or economically disadvantaged regions. Therefore, open access to knowledge has become essential for a country's educational, socio-cultural, and scientific development. Since the emergence of Open Access initiative, the concept has been defined in different ways by numerous authors. In 2012, Swan's study of open access showed that the concept of Open Access was first defined globally by Budapest Open Access Initiative (BOAI). The study also stated the definition of Open Access as a free availability on the public internet, permitting any users to

read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the Internet itself (Swan, 2012).

Besides, accepting and implementing open access initiative, while putting into cognizance its numerous benefits, would be of great advantage to libraries of private universities especially in this time of recession where information resources such as foreign journals and books have skyrocketed. The usual inadequate funding of Nigerian university libraries especially libraries of private universities that solely depend on internally generated revenue like school fees has not helped matters. This inadequacy is evident in their limited collection development and has negatively affected users' patronage, students' performance in both internal and external examinations, and even poor theses/research works produced by these students, particularly postgraduate students. Therefore, it is worthy of note that most of these challenges mentioned can be minimized or even eradicated completely if information custodians and library managements can take advantage of open access initiative. Thus, the provision or availability of open access web links in the library via the library's webpage for easy accessibility and utilization of free scholarly publications by library patrons' especially postgraduate students who are potential scholars and researchers and are presumed to constitute the major users of open

access resources for their research and academic work, cannot be over emphasized.

Statement of the Problem

Literature revealed that collection development in libraries especially libraries of private universities which depends solely on school fees and Internally Generated Revenue (IGR), have been hampered by shortage or grossly inadequate funding and this has adversely affected resource provision which in turn has led to so many of the private university libraries failing NUC accreditation exercise in many subject areas.

In the same vein, a basic problem that affects the academia via the library is the rising price of scholarly publications especially the ones published in current International journals. This has put students' personal and individual search for knowledge and understanding at stake and this has resulted to poor academic performance of these students in both internal and external professional examinations as a result of shallow knowledge-level.

However, despite the huge and numerous benefits that can be derived from open access initiatives the researcher finds it puzzling why libraries will be faced by the aforementioned challenges. Hence, this prompted this work, to examine the provision of open access web links in libraries of private universities especially for postgraduate students who are assumed to be potential academicians and are the major users of academic publications for their research works, teaching and learning.

Purpose of the Study

The general purpose of this study is to examine the provision of open access

web links for postgraduate students by private university libraries in Nigeria. Specifically, the study sought to:

1. investigate the open access website links provided in libraries of private universities for postgraduate students in Nigeria;
2. examine the accessibility of these open access resources to postgraduate students in Nigeria;
3. identify the challenges associated with the use of these resources in libraries of private universities in Nigeria;

Review of Literature

It is no gainsaying to provide tailored information especially free scholarly ones to different constituencies like students, authors, researchers, and even managers and administrators.

The library website is an important advocacy tool for providing up-to-date information about open access. As opposed to more general open access websites, the library can tailor and contextualize the information for researchers and point to specific resources of relevance (Swan and Chan, 2009). When this is done, it saves the users' precious time in trying to browse the web in search of articles from free scholarly websites.

In the same vein, Swan and Chan further stressed that, a study on how library websites are helping to promote open access found that many library websites did not make open access a prominent feature, necessitating a long search around the website before finding the relevant information. They also recommended that a library website should flag up open access prominently and provide interested readers with clear routes to both authoritative information about open access and the repository which should

itself be supported by a set of resources on open access and its benefit.

However, there is the need for the custodians of knowledge (librarians) to also have a full grasp of open access initiative and how to access them online because 'you can only give what you have'. In the same light, Arosanyin and Ajibili (2014) in a study 'open access awareness and use in libraries in Nigeria' recommended among others that, the library should organize training and retraining of its librarians who will in turn assist library users explore open access resources online. Mohammed and Garba (2013) further buttressed that libraries should organize training on interval bases for both staff and students especially postgraduate students on the importance of open access publications. They further stressed that faculties should guide and encourage their students on the need for publishing in Open Access Journals. This was further stressed by Ajibili and Emmanuel (2017) when they said that the library should often organize seminars and workshops on open access for both students and other library stakeholders to create the awareness on the availability, nature and benefits of these invaluable resources.

Suber's, and Bailey's explanations (as cited in Ajibili, 2017) agreed that the role of a digital librarian in open access to knowledge is more than having ICT skills. Their works suggest that the role of a digital librarian in open access knowledge can be accomplished through two complementary strategies. One is "self-archiving" and the other is open access journal" which the digital

librarian must as a matter of duty enlighten his users. Therefore, it is obligatory for librarians to advocate and market open access and also take advantage of the numerous benefits open access initiative stands to offer.

Therefore, from the literatures reviewed above, it is obvious that the library. Therefore, from the literatures reviewed above, it is obvious that the library has a great role to play in this technology age if users' information needs would be met amidst stringent limited budget using open access initiative as a tool for augmenting inadequate information resources in information centres like the library. This will not only handle the area of insufficient library holdings during academic accreditation exercises but will similarly improve the quality of research works amongst students, researchers and academicians.

Research Methodology

A descriptive survey research design was used for the study. At the time of this work, National Universities Commission (2013) shows that there were no Private Universities in North-West, North-East and North-Central running postgraduate programmes, hence this study was carried out in libraries of private universities in South-West, South-South and South-East Nigeria. However, one university was purposefully selected per zone to give a good representation of the universities in that zone. A total of 603 postgraduate students enrolled in the universities under study thus, a total

sample size of 150 respondents was selected using Multi-stage sampling technique. This technique was adopted because of the large number of private universities unevenly and dispersedly spread all over Nigeria and besides, Multi-stage sampling technique is normally used to overcome problems associated with geographically dispersed population when face-to-face contact is needed or where it is expensive and time consuming to construct a sampling frame for a large geographical area. Also, this justification is based on Nwana's account (as cited in Bassi and Camble, 2011) who stated that, if a population was in many hundreds, one needs a sample size of 20%, and if a population is in a few thousands, one needs a sample size of 10%, but for a population of several thousands, one needs a sample of 5% or less. Therefore, the total sample size for the study was 150 which represent 20% of the total population (603). The researcher developed a questionnaire titled "Provision of Open Access Website Links Questionnaire" (POAWLQ) and an observation checklist, which were used to collect data for the study. A total of 150 copies of the questionnaire were distributed to respondents, out of which 143 copies were returned and found to be correctly filled. This gave a response rate of 95.3%. The data collected were analyzed using Mean (X) and Standard Deviations to answer the research questions.

The distribution of the population and sample size

S/N	Universities	POP. of Postgrad. Students	Sampled
1.	Madonna University	51	50
2.	Igbinedion University	87	50
3.	Pan-Africa University	465	50
Total		603	150

Source: (Records and Statistics Unit, National Universities Commission, 2013). The only existing legitimate document as at 2017 when this work was ongoing.

Data analysis and discussion

Below are the analysis of the responses to the research questions and the interpretation of the findings.

Research Question 1: *What type of open access web links are provided in libraries of private universities in Nigeria?*

Table 1: Percentage Distribution of Respondents on Provision of Open Access Web Links

S/N	Open Access Sources (OAS)	Response Rate	Name of University						Overall		D R
			PAU		MU		IU		NA	AV	
			NA	AV	NA	AV	NA	AV			
1	Directory of Open Access Journals	Freq %	19	20	26	12	2	34	48	65	AV 3 rd
			48.7%	51.3%	68.4%	31.6%	5.6%	94.4%	42.5%	57.5%	
2	Directory of Open Access Books	Freq %	20	19	26	12	2	34	48	65	AV 3 rd
			51.3%	48.7%	68.4%	31.6%	5.6%	94.4%	42.5%	57.5%	
3	Journal Storage	Freq %	30	9	0	38	2	34	32	81	AV 1 st
			76.9%	23.1%	.0%	100.0%	5.6%	97.2%	28.3%	71.7%	
4	Bentham Science Publishing	Freq %	34	5	36	2	36	0	106	7	NA 9 th
			87.2%	12.8%	94.7%	5.3%	100.0%	.0%	93.8%	6.2%	
5	Hindawi Open Access Journals	Freq %	31	8	36	2	36	0	80	33	NA 6 th
			79.5%	20.5%	94.7%	5.3%	100.0%	.0%	70.8%	29.2%	
6	BioMed Central	Freq %	34	5	36	2	33	3	73	40	NA 5 th
			87.2%	12.8%	94.7%	5.3%	91.7%	8.3%	64.6%	35.4%	
7	High Wire Press	Freq %	21	18	36	2	36	0	90	23	NA 7 th
			53.8%	46.2%	94.7%	5.3%	100.0%	.0%	79.6%	20.4%	
8	Open Journals Gate	Freq %	30	9	36	2	36	0	102	11	NA 8 th
			76.9%	23.1%	94.7%	5.3%	100.0%	.0%	90.3%	9.7%	
9	African Journals Online	Freq %	30	9	3	35	4	32	37	76	AV 2 nd
			76.9%	23.1%	7.9%	92.1%	11.1%	88.9%	32.7%	67.3%	
10	Bioline International	Freq %	30	9	36	2	36	0	102	11	NA 8 th
			76.9%	23.1%	94.7%	5.3%	100.0%	.0%	90.3%	9.7%	
11	Online Access to Research in the Environment (OARE)	Freq %	30	9	36	2	35	1	67	46	NA 4 th

			76.9%	23.1%	94.7%	5.3%	97.2%	2.8%	59.3%	40.7%	
12	Health InterNetwork Access to Research Initiative (HINARI)	Freq %	5	34	2	36	1	35	37	76	AV 2 nd
			12.6%	87.2%	5.3%	94.7%	2.8%	97.2%	32.7%	67.3%	

*Key1: PAU-Pan Atlantic University, MU-Madonna University, IU-Igbinedion University.
 *Key2: AV-Available, NA-Not Available, D-Decision, R-Rating.

Table 1 shows the percentage distribution of respondents on provision of open access web links. The overall ranking showed that Journal Storage/JSTOR had a response rate of 71.7% and was ranked highest among the open access web link provided in the library while Bentham Science Publishing which had a response rate of 6.2% was ranked lowest among the open access web link provided in the libraries studied. From the results gathered, the table showed that the respondents decisively

indicated that only 5 items (Directory of Open Access Journals/DOAJ, Directory of Open Access Books/DOAB, Journal Storage/JSTOR, African Journals Online/AJOL and Health InterNetwork Access to Research Initiative/HINARI) out of the twelve items listed were provided in their libraries.

Research Question 2: *What is the extent of accessibility of open access resources to postgraduate students?*

Table 2: Mean Ratings of Extent of Accessibility of Open Access Resources to Postgraduate Students.

SN	Items	Name of University						Overall		Rating	Decision
		PAU		MU		IU		Mean	SD		
		Mean	SD	Mean	SD	Mean	SD				
1	I do access open access resources from the Internet in the library	3.15	.84	3.13	.41	3.33	.63	3.20	.66	1 st	GE
2	I do read articles on open access resources from the Internet in the library	2.28	.83	3.12	.41	3.32	.63	2.90	.79	2 nd	GE
3	I do cite articles of open access resources from the Internet in the library	2.59	1.02	2.39	.75	2.58	.91	2.52	.90	3 rd	GE
4	I do reference articles of open access resources from the Internet in the library	2.59	1.02	2.39	.75	2.58	.91	2.52	.90	4 th	GE
5	I do download articles on open access resources from the Internet in the library	2.23	.81	1.45	.60	2.36	.76	2.01	.83	5 th	LE
6	I do publish my work in open access journals	1.13	.41	2.03	.28	1.11	.40	1.42	.56	6 th	NE

*Key1: PAU-Pan Atlantic University, MU-Madonna University, IU-Igbinedion University.
 *Key2: GE-Great Extent, LE-Low Extent, NE-No Extent.

Table 2 shows the Mean ratings of the respondents on the extent of accessibility of open access resources to postgraduate students. The overall Mean showed that accessing open

access resources via the Internet in the library (Mean = 3.20) was ranked highest, while publishing of work in open access journals (Mean = 1.42) was ranked lowest as extent of

accessibility of open access resources in the library. Also, using the principles of real limit of numbers, the table shows that open access resources were accessed to a great extent as revealed in items 1-4 (i do access open access resources from the Internet in the library, i do read articles on open access resources from the Internet in the library, i do cite articles of open access resources from the Internet in the library, and i do reference articles of open access resources from the Internet in the

library), whereas utilized to a low extent on item 5 and utilized to no extent on item 6 (i do publish my work in open access journals) respectively.

Finally, the overall standard deviations ranged between 0.56-0.90. This shows that there was no wide variation in the standard deviations of the responses of the postgraduate students on the above Mean ratings.

Research Question 3: *What are the challenges associated with the accessibility of open access resources?*

Table 3: Mean Ratings of the Challenges Associated with the Accessibility of Open Access Resources

SN	Challenges	Name of University						Overall		Rating	Decision
		PAU		MU		IU		Mean	SD		
		Mean	SD	Mean	SD	Mean	SD				
1	Erratic power supply hence, disrupting the flow and stability of the Internet service	2.46	1.05	3.08	.27	3.61	.55	3.04	.84	1 st	A
2	Slow Internet connectivity hence, delay in opening and downloading open access resources on the net	2.41	.88	3.05	.23	3.03	.51	2.82	.67	2 nd	A
3	Lack of Internet searching skills limits me from accessing open access resources on the net	2.51	.91	3.00	.33	2.72	.61	2.74	.69	3 rd	A
4	Inability of library staff in assisting me in searching and using Open Access Resources	2.72	.83	2.50	.56	2.75	.73	2.65	.72	4 th	A
5	Inadequate/shortage of computer systems and terminals thus, limiting my access to open access resources on net	2.08	.62	3.08	.27	2.67	.48	2.60	.63	5 th	A
6	Lack of knowledge of the existence of Open Access Resources hinders my use of it	2.54	.88	2.53	.95	2.67	.86	2.58	.89	6 th	A
7	Unavailability of Internet facilities to browse and access open access resources on the net	1.97	.54	3.05	.23	2.36	.54	2.46	.64	7 th	D

*Key1: PAU-Pan Atlantic University, MU-Madonna University, IU-Igbinedion University.
 *Key2: A-Agree, D-Disagree.

Table 3 shows the Mean ratings of the respondents on the challenges associated with the accessibility of open access resources. The overall Mean showed that erratic power supply hence, disrupting the flow and stability of the Internet service (Mean = 3.04) was ranked highest, while unavailability of Internet facilities to browse and access open access resources on the net (Mean = 2.46) was ranked lowest among the itemized challenges associated with the accessibility of open access resources.

Applying the criterion Mean of 2.50, the table shows that the respondents accepted items 1-6 (erratic power

supply hence, disrupting the flow and stability of the Internet service, slow Internet connectivity hence, delay in opening and downloading open access resources on the net, lack of Internet searching skills limits me from accessing open access resources on the net, inability of library staff in assisting me in searching and using Open Access Resources, inadequate/shortage of computer systems and terminals thus, limiting my access to open access resources on net and, lack of knowledge of the existence of Open Access Resources hinders my use of it unavailability of Internet facilities to browse and access

open access resources on the net) and disagreed on item 7 (unavailability of Internet facilities to browse and access open access resources on the net) as a challenge associated with the accessibility of open access resources.

Finally, the overall standard deviations ranged between 0.63-0.89. This shows that there was no wide variation in the standard deviations of the responses of the postgraduate students on the above Mean ratings.

Discussion of findings

From the observation checklist and the table of analysis on the extent of availability of open access web links in libraries of private universities, the findings showed that, open access web links were inadequately provided in the libraries studied, where only five out of the twelve items listed were found to be truly available. The availability of these open access sources were ranked in this order: Journal Storage (JSTOR), Health InterNetwork Access to Research Initiative (HINARI), African Journals Online (AJOL), Directory of Open Access Journals (DOAJ) and, Directory of Open Access Books (DOAB) respectively. The overall response rates for the above open access sources was 92.9%, 71.7%, 67.3%, 58.4%, and 57.5% respectively. The result clearly shows that open access web links in these libraries were not adequately provided for and this is in line with the study of Uzuegbu and McAlbert (2012) on the challenges of open access to knowledge: MOUAU Library experience. They opined that the library's cold attention to Open Access Initiative posed a major threat. They further stressed that the library management never showed or

convinced the university management on the need to digitalize the library and seek open access to knowledge materials. Moreover, Papin-Ramcharan and Dave's work (as cited in Ajibili, 2017), showed that just 8% of the academic staff at the University of Indies in Trinidad and Tobago (with likelihood of most of them being postgraduate students) of the institution's Faculty of Engineering were aware of digital repositories which was an integral part of Open Access Initiative.

However, the implication of this continued inadequacy can be disastrous to the academic community and library stakeholders, especially postgraduate students who are potential researchers and scholars. The inadequacy on the provision of open access web links in these libraries is tantamount to no provision of adequate information resources to meet users' daily information needs and this could affect the users' academic performance which in turn could affect the quality of research and scholarly activities carried out in these institutions because users need prompt, current and relevant information resources that can meet their information needs.

The Provision of open access web links to users leads to the utilization of open access resources which brings along with it numerous benefits not meant for users alone but also institutions and library administrators too. When these resources are accessed, downloaded, printed, bound and kept in the library, they serve as a means of augmenting limited collection development in libraries despite budget-enforced limits. These current and relevant open access resources will in no small measure

help arrest the issue of inadequate, obsolescent and irrelevant information materials found in the library during National Universities Commission (NUC) accreditation exercises.

The results obtained reveals that erratic power supply was a major challenge faced by these postgraduate students which prevented their efficient utilization of open access resources despite the limit provision of web links to these resources. They also strongly agreed that slow internet connectivity which amounted to delay in opening and downloading open access resources from the net was also an obstacle. In other words, these libraries undoubtedly had functional internet connectivity yet the use of open access resources could not be maximized because each time there was power failure, the Internet Server (IS) went off, thus internet downtime was experienced. This disrupted the stability of internet service, hence affected the flow of opening and downloading online articles from open access sources.

Also, limited bandwidth was indicated as one of the major causes of slow internet connectivity experienced by the respondents. Once the number of internet users supersedes the available internet bandwidth, then users are likely to experience slow internet connection which amounts to delay in opening and downloading open access resources. In the same light, Gana and Ajibili (2014) buttressed that the university's internet bandwidth should be increased or at best the library should be provided with its independent internet facilities to enhance the internet speed and improve library reference services.

In a way, the challenges revealed above had affected the users' internet searching skills which the respondents indicated as a limitation. Malekani's observation (as cited in Ajibili, 2017) opined that while students prefer the Internet resources, its effective use was hampered by several factors especially lack of internet searching skills. Moreover, the only helping aid available to these users who were library staff rarely assisted them in searching and using open access resources. The question now is, do the library staff themselves have adequate in-house training and orientation on the general concept of open access resources and also how to assist users access these resources easily online? Until this is done, the custodians of knowledge (library staff) will continue to be seen as one of the obstacles associated with the utilization of open access resources which is meant to provide users with free, apt, online, current and relevant information resources to enhance their academic performance in both internal and external examinations.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. As a way of augmenting limited information resources in the library, it is recommended that libraries, especially libraries of private universities should endeavour to provide links to various open access websites on their library webpage to enable their users have acquaintance and easy access to these numerous free scholarly articles in their different fields of study.
2. A library website should flag up open access prominently and provide interested readers with

- clear routes to both authoritative information about open access and the repository which should itself be supported by a set or resources on open access and its benefit.
3. As a way of also maximizing and eradicating open access ignorance, the university management should occasionally organize seminars or workshops on the availability of open access links on their library's webpage. This will further boost optimal use of these websites and their resources thus improve academic performance and quality research among students and lecturers.
 4. There is need for the library to also provide power inverters or solar power facilities in the library as backup for stable electricity to curb epileptic internet services which in turn frustrates users' use of open access resources online connected via their library webpage. Although, the power stability will also be beneficial in enhancing library services especially for libraries that are digitized or automated.
 5. Increasing the internet bandwidth in the library can help avoid slow downloading or slow internet connectivity when browsing free scholarly publications online which may hinder optimal use of these free resources. Internet terminals via Wi-Fi should be increased in the library to encourage capacity use of open access resources among users, especially where the library has limited computer systems.
 6. Library staff should be given regular in-house training and orientation on the general concept of open access and also the procedures in accessing their links hence, enabling them to effectively assist users in accessing these resources easily online. These will as well equip the staffs who are expected to render reference services and answer other information related queries of library users.

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