BIBLIOMETRIC ANALYSIS OF NIGERBIBLIOS JOURNAL (2005-2010

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ABSTRACT

The Nigerbiblios is a house journal of the National Library of Nigeria. (NLN) It was established in 1976 and ceased production in 1989 but was revived in 2004. Since then, it has attracted articles from LIS scholars and has kept to its publishing schedule. This study uses bibliometric analysis to ascertain the bibliographic features of articles published in the Nigerbiblios from 2005 to 2010. This study also determines the number of articles published, authorship patterns', authors' affiliated institutions, sources of citation, LIS journals cited and subject distributions in the Nigerbiblios. The analysis of Nigerbiblios revealed that a total of 64 articles were published from 2005-2010 with single authors contributing the highest number of articles. The subject mostly treated by the journal was in information management and information services. A total of 64 LIS journals were cited, with the African Journal of Library, Archive and Information Science been the mostly cited LIS journal. Majority of the contributors were from academic institutions.

INTRODUCTION

In 1969, Pritchard coined the term "Bibliometric" which is a type of research method used in library and information science. Bibliometric is principally based on metadata elements such as author, title, subject, citation etc related to scholarly publication within a discipline (Mukherfee, 2010). It involves the counting of authors, citations, relationship between or among authors, paginations of articles, subject areas amongst others. Many definitions on bibliometric have been given by scholars. For instance Thanuskodi (2010) defines bibliometric as the quantitative analysis and statistics for describing patterns of publication within a given field. In the same view, it is the study of the use of documents and pattern of publications in which mathematical and statistical methods are applied (British Standard Institute, 2012).

Bibliometric analysis enables individual, institution and government to determine the depth of research and current trend within a field. Libraries use the results of bibliometric studies to develop their collection and reframes' subscription policy. On the other hand, government applys the results of bibliometric analyses to appraise

academic institutions before allotting research funds. However, bibliometric analysis conducted on one or three scholarly communication sometimes may not give an in-depth knowledge of what is trending in the field. Notwithstanding, Borgman, 1990 as cited in Larivere, Sugimoto & Croin (2012) identified three aspects of bibliometric studies which are producers -author of a document or aggregates of authors, such as institutions and countries, artefacts -the documents used in communicating scholarship and their aggregates e.g journal and concepts -the topics under examination.

Larivere et al. (2012) further assert that journals are the most popular information resources of bibliometric studies. Journals are scholarly publication that communicates research results from researchers and experts in a field. Koehler et al (2000) affirm that scholarly journals reflect changes in the interests and concerns of authors' constituencies and of the discipline in general. Associations and institutions in Nigeria float journals to communicate current research results within a given field. One of such institutions is the National Library of Nigeria. The library publishes research findings and opinions of LIS scholar in its in-house journal known as the Nigerbiblios.

BACKGROUND TO THE STUDY

Nigerbiblios is the house journal of the National Library of Nigeria which was established in 1976 (Worldcat, 2012). In the 1989, Nigerbiblios ceased production but was resuscitated in 2004 (Sonaike, personal communication, May, 14, 2012). The core mandate of Nigerbiblios is to promote scholarly communication among librarians and to present research findings of LIS professionals in Nigeria to LIS communities nationally and internationally. A journal such as Nigerbiblios is a source of current information for showcasing indigenous findings of the Nigerian LIS landscape. Journals also enable researchers from other countries to identify and understand the unique happenings of a field in other countries. On the other hand, journals available on the internet provide platform for collaboration between and among authors from different institutions and countries. Similarly, authors and their affiliated institutions are given wider visibility globally through articles published in online journals. It is based on this that the study is designed to determine the productivity of the Nigerbiblios after it was revived in 2004.

OBJECTIVES OF THE STUDY.

The objectives of this study are :

I.   To assess the distribution of articles per year
ii.   To study the authorship pattern
iii.   To evaluate the type of sources cited in the articles
iv.   To find out the topic distribution of the articles
v.   To ascertain collaboration between authors
vi.   To examine the highest and lowest citation of an article
vii.   To determine and rank LIS journals that were cited

LITERATURE REVIEW

Many scholars have conducted bibliometric analyses on print and electronic journals. These studies cut across all fields such as science and technology, social sciences, health, library and information science, agriculture amongst others. Some of these bibliometric studies would be reviewed in this study. Using bibliometric analysis, Lochan Jena, Swain & Sahoo (2012) study the publication trends in the Annals of Library and Information Studies (ALIS), 2002-2010. The study reported that the ALIS had 247 articles published during the period. The study further revealed that two authors were preferred mode to publish rather than individual author. On the other hand, journal sources were mostly cited which was followed by books and web resources. In a similarly study, Warraich & Ahmed (2011) in understanding the research trends of the Pakistan LIS sector conducted an analysis of the Pakistan Journal of Library and Information Science (PJLIS) from 1995-2010. The analysis indicated that a total of 111 articles were published and most of the papers were from single authors. The journal also attracted twelve foreign authors showing that the journal has been circulated internationally.

In another context to ascertain the international collaboration of Australian researchers in science and technology, Matthews et al. (2009) applied bibliometric analysis to determine how international collaborative activities affect relative citation per papers performance. The result of the study revealed that Australian researchers in science & technology associated more with international counterparts rather than with the domestic colleagues. The study further indicated that as from 1990s the number of Australian researchers in the field of S & T increased significantly. This increase was ascribed to influence of communication technology. The analysis also showed that Australian researchers still preferred multilaterally collaboration with European and USA based authors. Employing a different bibliometric methods such as normative comparison, network analysis, citation analysis and visualizations Rosas, Kagan, Schouten, Slack and Trochim (2011) investigated the peer-reviewed publications from National Institute of Allergy and Infectious Diseases (NIAID) HIV/AIDs Extramural Clinical Trials Networks from 2006-2008. The study focus included performance and impact of research output, ranking of the papers, collaboration among authors.

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The findings showed that 419 papers were in the network. These 419 papers were published in 114 different journals which represented core areas of AIDs research. The pattern of authorship in the network was co-authorship. In 2011, Thanuskodi applied bibliometric analysis to study the bibliographic features of Library Herald Journal from 2001-2010. The study indicated that the journal published 138 articles during the period of study. The maximum number of contributions were from single authors with 83 (52.17%). The study reveals that the highest number of articles appeared in the area of library automation in library and information science. The analysis showed that majority of the authors were affiliated to universities. In addition, the study reported that authors preferred journals as the source of information. On the other hand, to determine the output performance of social scientist Thanuskodi (2010) conducted another bibliometric studies on the Journal of Social Science from 2003 to 2007. The study showed that a total of 273 articles were published for the five years. These 273 articles were contributions from authors across the globe with Indian authors having the least contribution. The analysis further indicated that journal articles were the most cited in the Journal of Social Science. On the other hand, among the social science subjects, Economics was found to be the most treated when compare to Sociology, Geography, and Anthropology. The authorship pattern showed that two authors contributed the most articles during 2003-2007. Hussain and Fatima (2011) using bibliometric analysis evaluated the bibliographic features of the electronic journal of Chinese Librarianship from 2006-2010. The study revealed that during the 4 years the journal attracted 62 articles from authors across the globe with authors from the USA having the highest numbers of articles (72.58%). Also single authors of 53.23% contributed the highest articles. The analysis of the study also reported that majority of the authors were from academic institutions. The subject area mostly discussed by the 62 articles was in the area of electronic resources. In addition, 1,006 citations were given in the 62 articles, out of these citations, 450 were form journal articles, 230 from books and 200 from online search and website. The LIS journal mostly cited according to their study was Interlending and Document Supply journal.

METHODOLOGY

The methodology applied in this study is bibliometric analysis which was used to study the bibliographic features of articles published in the Nigerbiblios from 2005 to 2010. The number of articles was collected from the cover page of the six volumes. The authors affiliated institutions and designation were extracted from the title page of each articles. In addition, the sources of citations were obtained from the list of references at the end of each article. The topic distributions were collected from the titles and abstracts of the articles. The bibliographic features of each article from the six volumes were counted to get the total for each year. In order, for accuracy as it relates to number of references cited, the author counted the references listed at the end of each reference page per volume while grouping the citations according to their information sources. Likewise, to ensure the accuracy of the computation the Microsoft excel package was used in the analysis. The data collected were coded and presented in tables and graphs of frequency, percentage, average and cumulative total.

RESULTS

Table 1 Distribution of Articles

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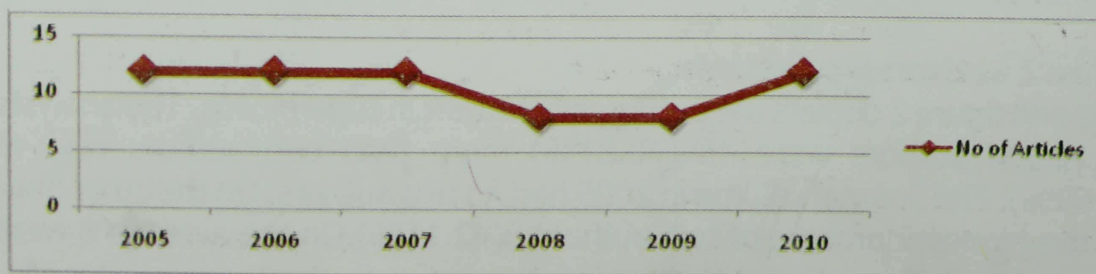| Month and Year	Volume	No. of Articles	Percentage	Cumulative Total
Jan/Dec2005	Vol. 16	12	18.75	12
Jan/Dec 2006	Vol. 17	12	18.75	24
Jan/Dec 2007	Vol. 18	12	18.75	36
Jan/Dec 2008	Vol. 19	8	12.5	44
Jan/Dec 2009	Vol. 20	8	12.5	52
Jan/Dec 2010	Vol. 20	12	18.75	64
Total		64	100	-

Figure 1 Distribution of article

Table 1 shows the distribution of articles published per month and year. A total of 64 articles were published from 2005-2010. In 2005 to 2007   each had 12(18.7%) articles   while between 2008 to 2009 there were 6.3% regression in the number of articles contributed that is 8 (12.5%) each. Afterwards in 2010 the articles publish increased to 12 (18.75%).

Table 2 Authorship Patterns

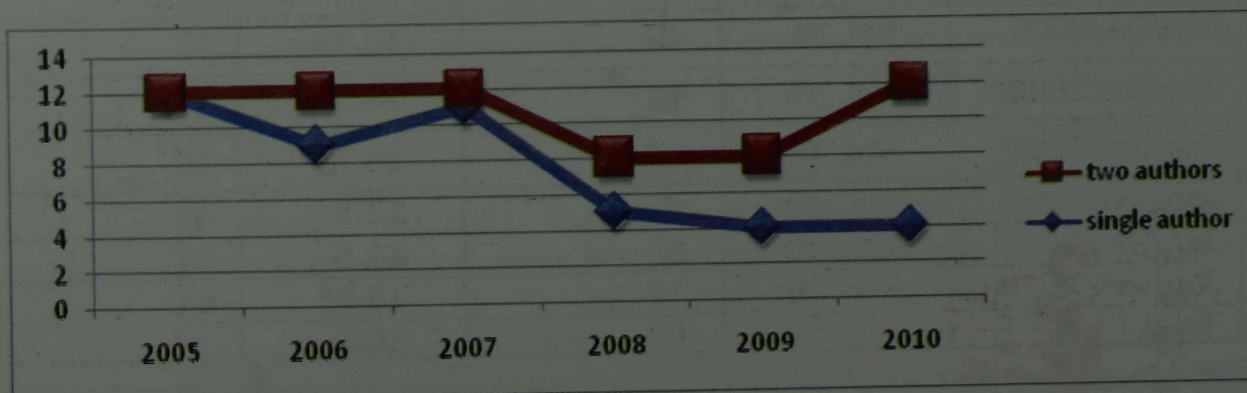| Years	Single Author	Percentage	Two Authors	Percentage
2005	12	26.67	0	0
2006	9	20.00	3	15.79
2007	11	24.44	1	05.26
2008	5	11.11	3	15.79
2009	4	08.88	4	21.05
2010	4	08.80	8	42.11
Total	45	100	19	100
Average author per article	7.5		3.17	

Figure 2 authorship pattern

Table and figure 2 depicts the authorship pattern in Nigerbiblios. The analysis shows that single authors were 45 (70.31%) more than two authors who were 19 (29.69%). The Journal volume in 2005 had no two authors. On the other hand, 2010 had the highest numbers of two authors 8(42.11%).On the average 8 were single author while 3.2 were two authors.

Table 3 -Source of Information Resources

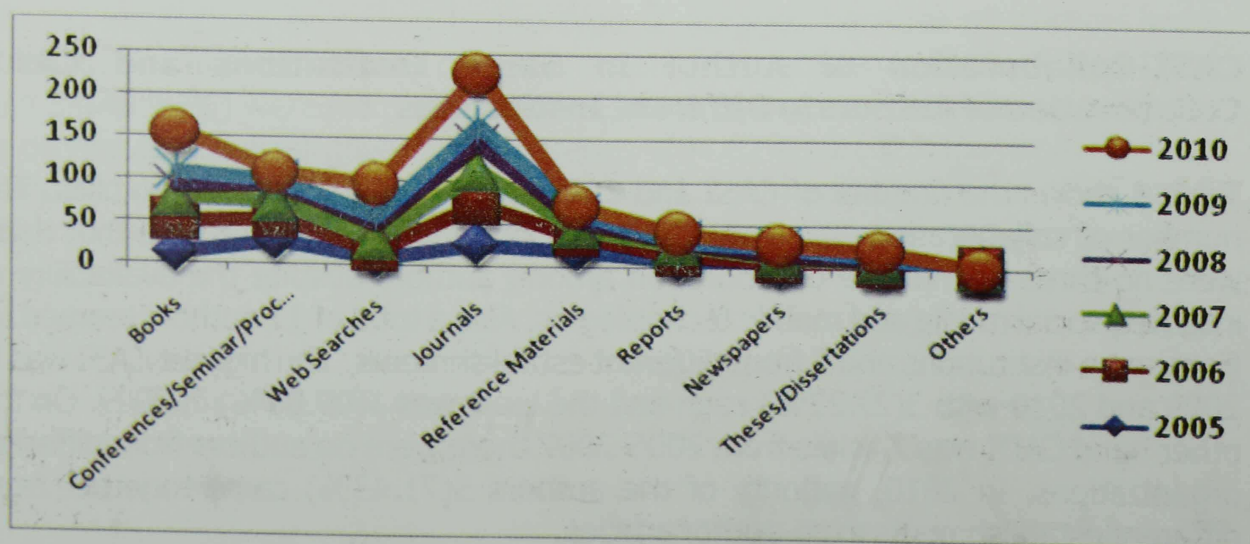| Sources of Citation	Years						TOTAL	Percentage
	2005	2006	2007	2008	2009	2010		
Books	12	37	28	13	18	47	155	20.83
Conferences/seminar/ Proceedings	27	26	20	20	5	9	107	14.83
Electronic Resources i.e Web Searches	8	8	14	17	11	37	95	12.77
Journals	25	47	40	32	22	61	227	30.51
Reference Materials i.e Encyclopedia	18	18	10	8	10	7	71	9.54
Reports i.e Government Commission/Committee	9	5	13	2	3	9	41	5.51
Newspapers/Bulletin	2	7	5	1	9	3	27	3.62
Theses/Dissertations	2	1	5	2	5	5	20	2.68
Others	0	0	0	1	0	0	1	0.13
Total	103	149	135	96	83	178	744	100
Number of Article	12	12	12	8	8	12	64	
Average Citation	8.53	12.41	11.25	12	10.38	14.83	11.63	

Figure 3- source of information resources

Figure 3 reveals the sources of information materials cited by authors from 2005-2010. Majority of the authors cited journals 227(30.51%) probable because it communicates the most current findings in a field. This was followed by books with 155(20.83%).

The thirdly most cited sources were onferences/proceedings/seminar papers with 95(12.77%) and internet searches 95(12.77%). Among the least cited sources were others 1(0.13%), theses/dissertations 21(2.68%), newspapers/bulletins 27(3.62%), reports 41(5.51%) and references materials 71(9.54%). On the average 2010 had the most citation of 14.83 while 2005 had the least of 8.53.

Years	No of article =17			
	CASI	Percentage	C ADI	Percentage
2005	0	0	0	0
2006	2	18.18	0	0
2007	1	09.09	0	0
2008	2	18.18	1	14.29
2009	3	27.27	1	14.29
2010	3	27.27	5	71.43
Total	11	100	7	100

CASI-Collaboration of Author in Same Institutions and CADI-Collaboration of Authors in Different Institutions

Table 4 shows the number of CASI and CADI from 2005-2010 in Nigerbiblios. The number of collaboration was that of two authors and it worthy to note that there were no three or multiple collaboration among authors despite the availability of internet, social media and mobile technologies. Also a total of 11 authors teamed up from same institutions and 7 from different establishments. The highest CASI was in 2009 and 2010 with 3(27.27%) each and the least was 1(09.09%) in 2007. On the other hand CADI was 7, while from 2005-2007 there were no authors from different organizations. In 2010, majority of the authors 5(71.43%) came together from different establishments to co-author articles.

Table 5- Institutional affiliation of Authors

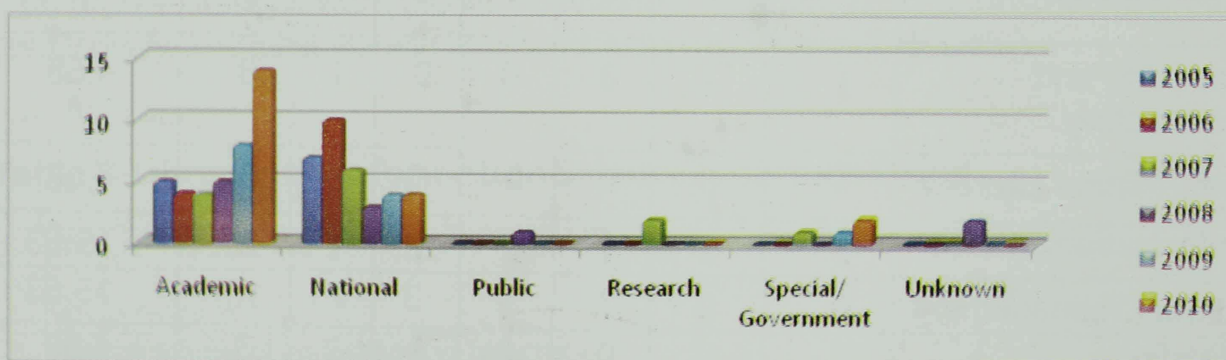| Years Type of Institutions (Library)	Year						Total	Percentage
	2005	2006	2007	2008	2009	2010		
Academic	5	4	4	5	8	14	40	48.19
National	7	10	6	3	4	4	34	40.96
Public	0	0	0	1	0	0	1	01.20
Research	0	0	2	0	0	0	2	02.41
Special/Government	0	0	1	0	1	2	4	04.82
Unknown	0	0	0	2	0	0	2	02.41
							83	100

Figure 4 Institutional affiliations of Authors

Table 5 reveals the authors' affiliated institutions. This study grouped the authors affiliated institutions according to the type of libraries because all authors were librarians. The highest number of authors were from academic library 40(48.19%) while 34(40.96%) were from the national library of Nigeria the journal's publisher. The others were special/government libraries 4(04.82%), 2 (02.41%) from research library and public library was the least with 1(1.20%) author. On the other hand, 2(02.41%) were unknown as they did not indicate their affiliated institutions.

Table 6-Topic Distribution

Topic	Year						Total No of Article	Percentage
	2005	2006	2007	2008	2009	2010		
Library Automation /Networking/ Software	2	3	2	1	0	1	9	14.06
Catalogue and Classification	1	0	0	0	0	0	1	1.56
Collection Development	0	1	3	0	0	2	6	9.37
Conservation and Preservation	1	2	1	0	0	1	5	7.81
Copyright and Piracy	0	0	0	1	1	0	2	3.13
Indexing and Abstracting	1	1	0	0	0	1	3	4.68
Information Literacy	1	0	0	0	0	2	3	4.68
Information services	2	3	1	1	2	1	10	15.63
Library management	0	0	2	3	3	2	10	15.63
Reading	1	0	0	0	1	1	3	4.68
Gender and Library	0	1	1	0	0	1	3	4.68
Others	3	1	2	2	1	0	9	14.06
Total							64	100

Table 6 indicate the LIS topics that were treated by each article from 2005-2010. Majority of the articles treated topics on information services and library management 10(15.63%) which was followed by automation/networking/library software as well as gender and library 9(14.06%). Others in this context meant topics that are not core LIS areas which were 9(14.06%). The least topic covered was 1(1.56%) catalogue and classification which was in 2005.

Table 7- Citations Distribution

Years	No of Articles	No of Citations	Percentage	Highest Citation	Percentage	Lowest Citation	percentage
2005	12	103	13.84	13	10.74	3	10.34
2006	12	149	20.03	27	22.31	6	20.69
2007	12	135	18.15	20	16.52	4	132.79
2008	8	96	12.90	19	15.70	7	24.14
2009	8	83	11.16	15	12.40	6	20.69
2010	12	178	23.92	27	22.31	3	10.34
	64	744		121		29	

Table 7 shows the highest and lowest citations in the articles from 2005 to 2010. A total of 774 citations were given. The highest were 27(22.31%) in 2006 and 2010 respectively. The least were in 2005 and 2010 which were 3(10.34%).

Table 8-Library and Information Sciences Journals Citied

S/N	Title of LIS Journals	No of articies	Percentage	Cumulative Total
1	Abuja InFOLIB	1	00.73	1
2	African Journal of Education and Information Management	1	00.73	2
3	African Journal of Library, Archival and Information Science	17	12.41	19
4	American Library	1	00.73	20
5	American Society of Information Science	2	01.46	22
6	Annual Review of Information Science and Technology	1	00.73	23
7	Audiovisual Librarian	1	00.73	24
8	Australian Academy and Research libraries	1	00.73	25
9	Australian Library Journal	1	00.73	26
10	Bibliotheek en Samenlevg	1	00.73	27
11	Borno Library Archival and Information Science Journal	3	02.19	30
12	Cape Library	1	00.73	31
13	COMMUNICATE: Journal of Library and Information Science	2	01.46	33
14	EDUCAUSE Quarterly	1	00.73	34

15	Electronic Library	2	01.46	36
16	Frontiers of Information and library Science	1	00.73	37
17	Gateway Library Journal	3	01.46	40
18	Global Review of Library and Information Science	1	00.73	41
19	Heartland Journal of Library and Information Science	1	00.73	42
20	IFLA Journal	6	04.38	48
21	International Information and Library Review	3	01.46	51
22	JOSSAN	1	00.73	52
23	Journal for Library Services for Distance Education	1	00.73	53
24	Journal of College and Research Libraries	2	01.46	55
25	Journal of Information Science	1	00.73	56
26	Journal of Information Science, Librarianship and Archive Administration	1	00.73	57
27	Journal of Interlibrary Loan	2	01.46	59
28	Journal of Library Administration	1	00.73	60
29	Journal of Library and Information Science	1	00.73	61
30	Journal of Library Automation	1	00.73	62
31	Journal of the Nigerian University Library System	1	00.73	63
32	Lagos Journal of Library and information Science	2	01.46	65
33	Lagos Librarian	4	02.92	69
34	Libraries and Academy	1	00.73	70
35	Library and Culture	1	00.73	71
36	Library Association Record	2	01.46	73

37	Library Herald	2	01.46	75
38	Library Journal	3	02.19	78
39	Library Management	2	01.46	80
40	Library Quarterly	2	01.46	82
41	Library Review	4	02.19	86
42	Library Trends	2	01.46	88
43	Lucknow Librarian	1	00.73	89
44	Nigerbiblios	11	08.03	100
45	Nigeria Journal of Computer Literacy	2	01.46	102
46	Nigeria Journal of Library, Archival & Information Science	2	01.46	104
47	Nigerian Libraries	10	07.30	114
48	Nigerian Library and Information Science	1	00.73	115
49	Nigerian Library and Information Science Review	4	02.92	119
50	Nigerian Library and Information Science Trends	2	01.46	121
51	Nigerian Library Association Enugu Chapter	1	00.73	122
52	Nigerian Library Link	1	00.73	123
53	Nigerian School Library	1	00.73	124
54	Public Library Quarterly	1	00.73	125
55	Research Librarian	2	01.46	127
56	School Librarian	1	00.73	128
57	School Libraries Worldwide	1	00.73	129
5	Serial Librarian	1	00.73	130

Table 8 shows the type of LIS journals cited which were foreign and local. It is worth to note that a total of 64 LIS journal were cited. Among these were 23 (35.94%) local LIS journals and 41(64.06%) foreign which were mainly from the USA and the UK. The mostly cited journal by authors in their articles was African Journal of Library, Archival and Information Science 17(12.41%), followed by the Nigerian Libraries 11(8.03%) and then Nigeribiblios 10(7.30%).

Table 9- Ranking of LIS Journals

S/N	Name of Journal	No of Articles	Percentage	Rank
1	African Journal of Library, Archival and Information Science	17	12.41	1st
2	Nigerbiblios	11	08.03	2nd
3	Nigerian Libraries	10	07.30	3rd
4	IFLA Journal	6	04.38	4th
5	Lagos Librarian	4	02.92	5th
6	Library review	4	02.19	6th
7	Nigerian Library and Information Science Review	4	02.92	7th
8	Borno Library Archival and Information Science Journal	3	02.19	8th
9	Gateway Library Journal	3	01.46	9th
10	International information and Library Review	3	01.46	10th

Table 9 reveals the ranking of the LIS journals cited. The mostly cited was the African Journal of Library, Archival and Information Science 17(12.41%) from 2005-2010 which was followed by Nigerbiblios 11(08.03%), Nigerian Libraries 10(07.03%) and 6(04.38%) IFLA journal. The author applied the unique ranking in descending order to ascertain the journals' positions.

SUMMARY OF FINDINGS AND DISCUSSION

The analysis of Nigerbiblios shows that a total of 64 articles were published from 2005-2010. However, the number of articles published did not increase from 2005-2007 rather it reduce in 2008-2009. Majority of the contributions were from single authors. Journals articles were the mostly cited sources for the six year. The

affiliated institutions of the authors were academic and not the national library of Nigeria. The subjects covered by majority of the articles were on information services and library management. A total of 64 LIS journals were consulted by authors, however through ranking, the African Journal of Library, Archival and Information Science was mostly cited.

RECOMMENDATIONS

Since Nigerbiblios was resuscitated in 2004 it may not have fully utilized the advantages of Information and Communication Technologies (ICTs) media to call for papers. Some of these media that can be explored are the NLN website (www.nln.gov.ng) and the Nigerian Library Association (NLA) and the Librarians' Registration Council of Nigeria (LRCN) fora to call for papers and to create more awareness. Also links can be created to the website of the NLA and the LRCN. The editorial board of the Nigerbiblios should be re-constituted to include not just staff of the NLN but also renowned and experienced librarians locally and internationally. The NLN can introduce an electronic version of the journal to be hosted on its website. This action will create more awareness and increase revenue generation. Also more funds should be release to enable the Journal meet its publishing schedule. The Management of the journal from time to time may also introduce themes for a certain period to attract quality papers.

CONCLUSION

Bibliometric analyses have enable scholars, institutions and individuals to not only understand the ranking of authors and nations but also to determine the ranking and quality of journals. Nigerbiblios is a medium of showcasing intellectual output of LIS professions in Nigeria, therefore the need to re-brand it in all aspects, for Nigerbiblios to continually showcase the LIS research findings. In addition, the recommendations when applied will enable the LIS community to re-define the contents of their journals, seek for better media to advertise their journals thus attracting quality and well researched articles from authors globally. Similarly, it will enable international LIS communities to understand the unique nature of the Nigerian LIS happenings. Also more research needs would be identified for further research and at the same time exposing new areas of training.

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