Publication Output of Lecturers in Library Schools, Nigeria

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In recent times, there has been an observed stagnation of lecturers in terms of academic level growth and non-promotion, which is linked with publication output. This necessitated the investigation of LIS lecturers' publication output in universities in Nigeria. The descriptive design was adopted using an online questionnaire, which yielded 86 responses. Data generated were analyzed using simple percentages, Tukey HSD tests, and ANOVA. The study revealed that the productivity of LIS lecturers is based on their area of specialty and interest. Factors such as promotion, contribution to knowledge, peer recognition, salary improvement, and staying current (consistency/complete involvement in research activities) were the major reasons that they publish. Time constraints, poor interpretation skills, exorbitant publication fees by journal editorials, and the high rejection rate of manuscripts by journals hinder publications. Statistical significance was observed in the number of publications of LIS lecturers from library schools in various geopolitical areas. The study therefore recommends that financial support from both government and non-governmental organizations should be made available to lecturers. Such funds should be accessible with the provision that there be appropriate feedback on research progress. Departments and institutions can also organize seminars or symposia on the need to collaborate in research, and outline steps on the preparation of manuscripts suitable for publication in reputable journals to avoid rejection by journal editorial boards. There should also be a reduction of workload for lecturers through the provision of work leave/vacation for some period of time to ease work and research tension.

Keywords: lecturers, library schools, Nigeria, publication, publication output, universities

KEY POINTS:

- A provincial publication output of LIS lecturers is based on areas of interest and specialty, with the level of productivity in diverse areas of research connected with a reduction in workload and vacation.
- Although a reasonable productivity and publication output was recorded among some lecturers, notable obstacles to publication output of LIS lecturers include exorbitant publication fees, high rate of manuscript rejection, and poor writing and interpretation skills.
- Publication output and productivity of LIS lecturers are informed by major reasons, including contributing to knowledge and staying current with global trends in LIS studies.

In every institution of study, lecturers (university teaching staff or academic staff) are not to remain latent in their teaching careers but to be progressive, especially in research development and in innovative contributions to a specific field of specialty or interest which can also be put down in terms of publications. The amount of research conducted or published, also referred to as publication output/research output, is very important in the career journey of lecturers, considering the common saying "publish or perish." According to Nwosu, Obiamalu, and Udem (2015), publication output is defined as the number of published pieces in reputable journals, conference proceedings, technical reports, or chapters in books by a lecturer/researcher to whom credit is given for the

dissemination of their research findings. In other words, a lecturer who is regarded as an instructor/tutor in a higher institution of learning and in a particular discipline such as library and information science (LIS) can be successful in their career only when they are consistently and fully involved in research activities. Like other disciplines, LIS is saddled with the management and dissemination of information responsibility; therefore, LIS lecturers must have vast knowledge and be ready to make information available to the public via publications. The highest career cadre in the lecturing discipline, which is the professorial cadre, can only be attained when lecturers go through the usual promotion process from the lowest, which is Graduate Assistant, to Assistant lecturer, Lecturer II, Lecturer I, Senior Lecturer, and Associate professors/readers through adequate contributions made to knowledge by research work done either locally or internationally. When considering the procedure for promotion, there should be a favourable report from department and faculty of the candidate within a waiting period of three years. In addition, a PhD is required for senior lecturers, readers, and professors, whereasranks below senior lecturer may be attained with a Master's degree (Archibong, David, Omoike, & Edet 2010). In Nigeria, the number of points needed for the promotion of reader/associate professor to professor is 50 (i.e., a minimum of 25 publications), where single-author and double-author manuscripts earn two points each. For a lecturer to be promoted from the position of senior lecturer to reader/associate professor, 45 points are required (i.e., a minimum of 23 publications). For a lecturer to be promoted from the position of lecturer I to senior lecturer, 30 points are required (i.e., a minimum of 15 publications). For a lecturer to be promoted from the position of lecturer II to lecturer I, 20 points are needed (i.e a minimum of10 publications). For a lecturer to be promoted from assistant lecturer to lecturer II, 15 points are needed (i.e., seven or eight publications). All academic staff are expected to meet the criteria for promotion together with other requirements from the various institutions before they can be promoted to the next required level. This can be achieved by individual lecturers reacting to other research work done, staying current, and being versatile in their field of study, with their research and studies contributing to knowledge.

Hence, Ani, Ngulube, and Onyacha (2014) stated that the findings of published research are usually widely disseminated for other researchers in the discipline to be able to react to the study; thus lecturers in institutions of higher learning get informed of current issues in their area of studies and contribute to current or recent knowledge. In another way, publication output is the gateway for both local and international recognition for lecturers as well as for their promotion and tenure (Popoola 2008). Iddris (2017) pointed out that knowledge flow from universities has been important for economic growth, so university lecturers are pressured to carry out scholarly research work as it benefits not only the researcher but also the entire society. It has been observed by lecturers/researchers that most lecturers in library schools complain of a lack of promotion due to their inability to meet the requirements of the institutions and university board. In addition, they often complain of lack of funding to publish in reputable international journals, little research collaboration, and frequent rejection of manuscripts. These are recent observations which require empirical investigation on the publication output of lecturers, classification of publications, reasons why lecturers publish, and barriers/problems encountered during

publication by lecturers. This calls for quality, consistency, research funding, and research collaboration, which is similar to the observation made by Adomi and Mordi (2003) that the quality and quantity of publications in Nigeria have both decreased. These observed declines in lecturers' productivity in terms of publication output, quality, consistency, and research funding now call for a check, as these are among the major development factors in the university. Research interest directed at these areas would promote university development, research quality, and research consistency and collaboration. Hence a null hypothesis which indicates that there is no significant difference in the number of publications of LIS lecturers in the various library schools in the geopolitical areas was formulated for the study and tested at a 0.05 level of statistical significance. The result of this study will be significant to lecturers, departments, institutions, governments, and the public, as the outcome and recommendations will reawaken the need for lecturers to publish, redirect attention toward reducing some of the addressed reasons for not publishing, and encourage collaboration. Departments, institutions, and government will see the need to provide funding for lecturers as a way of encouraging publishing in reputable journals. Departments and institutions may also be reawakened to the need to organize seminars or symposia on proposal development strategies, training on accessing reputable international journals, and steps toward preparation of manuscripts suitable for publication in reputable journals.

Literature review

It is obvious that sustainable economic growth can be obtained in a nation's economy through the adequate flow of knowledge, and not only through traditional indicators such as land, labour, and capital. Knowledge flow from universities has been important for economic growth, which is why university lecturers are meant to carry out scholarly research. According to Hemmings and Kay (2009), academics focus their attention on carrying out research and disseminating research results due to the value placed on research. In as much as research is very important to the researcher, the institution, and society at large, the output of information as well as the pattern of publication are very important, especially to lecturers. In addition, the publication output of lecturers is affirmed by the number of publications in journals, book chapters, conference proceedings, editorial letters, opinion pieces, and so on. Hence, according to Ani's (2013) study on academic staff in selected Nigerian universities between 2005 and 2012, publication output in universities is very important as it is the major factor which determines if a lecturer is productive or not. Ani's study covers the University of Calabar and the University of Ibadan using a bibliometric analysis of the 10 most productive staff in the surveyed universities from the year 2005 to 2012. The study revealed that the highest number of journal articles (56) was published within that period by individual academic staff at the University of Ibadan. In the same manner, the analysis by year of publication also revealed that 174 articles were published by academic staff at the University of Ibadan, compared to 34 manuscripts (journal articles) published by academic staff at the University of Calabar. This is a clear indication that the University of Ibadan is more productive than the University of Calabar with respect to lecturers' publication output. Some of the measures used for assessing publication output, as stated by Arora, Trivedi, and Kembhavi (2013), are citation counts, weighting given to

types of output, and peer ratings. Rotten (1990) also stated that the common approach to measuring publication output is to count the number of books, articles, technical reports, bulletins, and book reviews published, as well as the number of papers presented and grants received in whatever form. Okiki (2011) affirmed that numerical count is one of the major ways to determine the quantity of publications. Therefore, the numerical count of the amount of research carried out, documented, and published in scholarly journals constitutes the publication output of lecturers. Adeyemi (2009), who conducted a study on academic staff of Covenant University, Nigeria, revealed that the average number of publications by each of the academic staff members of Covenant University was two conference proceedings, two seminar presentations, and two journal publications. Some have more than two publications in some areas, as the overall weight of publications by all the respondents stated in percentages were 67% for conference proceedings, 34% for seminar presentations, and 43% for journal publications. This implies that lecturers of the university were more productive in conference proceedings than in journal publications and paper presentation, which were all part of the assessment of lecturers on publication output. In order words, lecturers were not productive in all areas that were assessed.

Nwosu et al. (2015) also investigated the relationship between Information literacy skills and research output of academic staff in Nnamdi Azikiwe University Awka, Nigeria, and one of the research questions assessed the rate of journal articles published by lecturers. The study found that the mean of the research output scores for the lecturer I position was 59.72, which is moderate. The senior lecturer position had a mean score of 69.50, which still falls into the moderate category. The category of readers had a 72.70 mean score of research output, which is high, while those in the professorial cadre had a mean score of 72.52, which is also high. The average mean scored by all the ranks used for the study was 70.20. Thus it was concluded that the mean of the research output scores was high, since the decision rule states that any score above 70 is high. Nwosu et al. concluded that the period of stay as a lecturer influenced publication output positively. Alzahrani (2011) also surveyed academic staff of a Saudi Arabian university on overcoming barriers to improving research productivity from 2001 to 2005, and his study revealed that about 1–3 and 4–8 were the highest numbers of publications by the academic staff. This indicates that most of the academic staff within four years had about 1–3 and 4–8 publications. Okpe, Simisaye, and Otuza's (2013) findings on publication output among faculty in Nigerian private universities between 2001 and 2012 show that 11 (9.7%) of the respondents had 1–3 publications, 14 (12.4%) had 4–6 publications, 25 (22.1%) had 7–9 publications, while 34 (30.1%) had more than 10 publications. This implies that since most of the respondents had spent more than 10 years (within the period of 2001 and 2012) in academics, their publication output could be termed as moderate. Another aspect of note from the various findings of past studies is single versus multiple authorship, which revealed either moderate or high publication output by lecturers. Okpe et al.'s study revealed that 85 (75.6%) of the respondents had single-author publications, 82 (72.6%) had joint-author publications, while 49 (43.4%) had multiple-author publications. The study thus revealed that majority of the respondents had single- and joint-author articles. Similarly, Okeji (2019) studied the research output of librarians in the field of library and information science in Nigeria using a bibliometric

analysis from 2000–2018, assessing the pattern of publications with either single or joint authorship. It revealed that out of the 1,106 articles analyzed, 527 (47.6%) were single-author, while 579 (52.4%) were co-authored articles. This shows that more than half (50%) of the articles were co-authored. This suggests that a good number of lecturers have both single- and co-authored articles.

The number of papers in a reputable journal is also an issue to be considered, as it also counts for publication output. In other words, the classification of publications or where lecturers decide to publish manuscripts (local or international journals) is of relevance in terms of publication output. According to Goel (2002), journal publications are classified into international (foreign) publications and national (local) publications. The study of Adomi and Mordi (2003) on publication in foreign journals and promotion of academics in Nigeria revealed that at the University of Benin, 20% of scholarly articles in foreign journals is required of academics seeking promotion from reader to professor; at Ambrose Alli University, Ekpoma, 10% of scholarly articles in foreign journals is required for a reader to be promoted to professor; while in Delta State University, Abraka, 10% of international journals indexed/abstracted by readers is required to be promoted from reader to professor. In other words, as shown from the forgoing, the terms for promotion vary per institutions. The observations of Adomi and Mordi have revealed that publishing in an internationally recognized, peer-reviewed/indexed journal is of great importance as it projects the credibility of both the lecturer and their institution. In essence, as the publication outputs of lecturers are meant to bring global recognition, lecturers are expected to promote quality publications in local and international journals. In other words, lecturers can then be assessed based on the classifications of journals, which has to do with where lecturers decide to publish.

The *World Education News and Review* (2006) and Idiode (2012) stated that the National University Commission (NUC) of Nigeria assesses research publication output by the number of scholarly research articles published in prestigious international academic journals, following the NUC regulations which state that academic staff members are to be evaluated for promotion every three years. Okiki and Mabawonku (2013) investigated the impact of information literacy skills on academic staff research productivity in Nigerian federal universities. In order to determine their classifications of journals, an average score of their journals was computed within a three-year period (2009–2011), and it was found that 65% of the respondents had articles in learned journals, 60.8% had conference papers, and 36.7% had chapters in books. However, only 7.3% had patents, in terms of invention. This shows that patents were low among academics in Nigeria. Similarly, Attama's (2013) study of the academic staff of polytechnics in South East and South-South Nigeria showed that academic staff have published articles in professional local journals ($M = 4.5$), presented papers at local conferences ($M = 4.13$), published articles locally outside their area of interest ($M = 2.23$), and presented papers at international conferences ($M = 1.95$). With the decision rule that 0.50–1.49 is very low, 1.50–2.49 is low, 2.50–3.49 is moderately low, 3.50–4.49 is moderately high, 4.50–6.49 is high, and 6.50–7.49 is very high, the findings therefore revealed that the publication output of the academic staff is moderately high or high in terms of articles in local professional journals and conferences/seminar papers presented at the local level.

There are various reasons that lecturers may decide to publish, which may also be used as a means of measuring the growth or success rate in lecturers' disciplines. Attama (2013) asserted that the purpose of conducting research could be twofold: The first is for knowledge advancement and comprehension in every facet of life, while the second is to make sure that training or learning in research takes place in an intensive and qualitative manner. Assessing the aforementioned will enable researchers, especially lecturers, to improve either in research or in their teaching activities. Although there are general reasons that lecturers publish, there is need to investigate individuals' opinion on why, in general, there is a need for lecturers to publish and to determine if they correspond to the general reason for publishing. Akuegwu, Udida, and Udey (2007) further discussed the purpose and importance of publication output based on the part it played in the lecturers' teaching efficiency. The effective teaching of a lecturer depends on their publication output because lecturers who are involved in research to produce quality manuscripts are exposed to information resources in various fields of knowledge. Babbar, Prasad, and Tata (2000) stated that publication output invariably makes lecturers informed of the current developments in their area of study, thereby adding to the quality of teaching methods in the class. Okiki (2011) highlighted some of the reasons that academic staff publish: to share insight, demonstrate academic scholarship, gain recognition for creative thinking, develop a reputation for expertise, become a professor, get a better salary, get a reduced teaching load, receive promotion, build their profile, collaborate with others, and satisfy their need for creativity. In a similar manner, Yusuf (2005) stated that lecturers publish as a result of collaboration with others, to advance their prestige, to be recognized, to be promoted, for a salary increment, to stay current, and to build their profile.

Despite the diverse self-benefits accrued to publication output, some lecturers still find it difficult to publish. According to Wadesango (2014), such difficulty is a result of qualifications, research environment, funding, and time available to staff. In addition, teaching, administrative work, and committee commitment may also hinder lecturers' publication output. As a follow-up to a related study by He and Wang (2006), it was found that most lecturers do not have confidence in their writing ability. He and Wang further asserted that some of them feel that the quality of their articles is not worthy enough for publication or may believe they have nothing new to publish. In other words, most of the lecturers do not have the skills needed to carry out research and analyze data. Similarly, McGrail, Rickard, and Jones (2006) affirmed it that a perceived lack of skill is a barrier to manuscript writing. This was also attested to in a similar study by Cele and Lekhanya (2014), who stated that underperformance in research publications is influenced by a number of factors such as institutional, personal, financial, infrastructural, scholarly, and professional factors. In essence, when these factors that may hinder publication output are dominant in an academic system, it becomes difficult to publish. In another related study carried out by Okonedo (2016) on research and publication productivity of librarians in public universities in South West Nigeria, it was reported that the most prominent challenge faced by the respondents was time constraints. This was followed by poor interpretation skills, exorbitant publication fees by journal editorials, and rejection of manuscripts by journal editorial boards. These factors stand as a potential hindrance to academics who intend to publish, and until major ways to encourage research activities/publications are put in place, publication output will continue to experience such set backs.

Methodology

The researcher adopted the descriptive survey design to elicit information on the publication output of library and information science lecturers in Nigeria. Descriptive research was used because it helps in describing the state of affairs at the time of a study (Salkind & Rainwater 2006). The questionnaire was the instrument used for the study. An online questionnaire was designed using docs.google.com forms and administered in the Nigerian lecturers' WhatsApp platform known as the National Association of Library and Information Science Educators (NALISE). The questionnaire was also sent to individuals in the group chat. The questionnaires were retrieved online for the sake of convenience and as a result of the lockdown due to the COVID-19 pandemic. The WhatsApp platform consists of 226 participants, of whom 86 responded. Hence, the samples analysed for the study were based on availability and the response rate of respondents online. Data generated from the online questionnaire were analyzed using simple percentage and frequency count, while the hypothesis was analysed using a Tukey HSD test and ANOVA.

Results

Section A: Demographic factors of respondents

Table 1 reveals information on the decadal age range of respondents. It can be inferred that a plurality of the respondents was within the age range of 40–49. It is important to note that the age range of 30–49 is the presumed career apex for developing and growing lecturers.

Table 2 shows the rank of respondents, indicating that the majority of the respondents (55.8%) were in the Lecturer I and II ranks.

Table 3 provides information on respondents' location in the various geopolitical areas in Nigeria. It is clear that the majority of the respondents were from library schools in South-South Nigeria. This is perhaps an indication that the library teaching staff in South-South Nigeria are prompt to respond to online documents. The study also revealed a partial representation of all respondents in all six geopolitical areas of the study.

Section B: Publication output of respondents

Table 4 reveals the number of publications by library and information science lecturers from 2017 to 2019. It is shown in the table that a majority of the respondents (57% in total) had

Table 1: Decadal age range of respondents (*N* = 86)

Age range of respondents	Number of responding participants	Percentage occurrence of participating age ranges
20–29	1	1.2
30–39	24	27.9
40–49	38	44.2
50–59	20	23.3
60 and above	3	3.5

Table 2: Academic ranks of respondent (*N* = 86)

Ranks and cadre	Numbers of participating respondents	Percentage occurrence
Graduate assistant	3	3.5
Assistant lecturer	13	15.1
Lecturer II	24	27.9
Lecturer I	24	27.9
Senior lecturer	11	12.8
Reader	7	8.1
Professor	4	4.7

Table 3: Geopolitical areas of respondents (*N* = 86)

Library schools in the various geopolitical areas	Numbers of participating respondents	Percentage occurrence (%)
Library schools in North West	3	3.5
Library schools in North East	6	7
Library schools in North Central	8	9.3
Library schools in South-South	45	52.3
Library schools in South West	6	7
Library schools in South East	18	20.9

a good number of textbooks (i.e., either 1–4 or 5–8) published within the past three years. And at the same time, 32.6% did not publish textbooks. This may be attributable to the inexperienced state of the lecturer at their career level or the feeling of despondency of not being qualified to write textbooks in their respective position, as it is felt that those of the higher cadres should write textbooks. For chapters in books, a plurality of respondents (47.7%) have 1–4 chapters in a book published, which shows that the lecturers are productive. For single-authored articles, the majority of the respondents have 1–4 articles published, which also implies the productivity level of the lecturers. For co-authored articles, most of the respondents have a good number of such articles published. For patents and certified inventions, 74 (86%) of the respondents do not have any patents or inventions. These are forms of intellectual property that gives its owner the legal right to exclude others from making, using, or selling an invention for a limited period of time. It is most applied in science and health disciplines, as it could be used to protect a selected therapeutic usage, for instance, a generic drug firm obtaining approval for marketing a known drug (Rai & Rice 2014). Twelve

Table 4: Number of publications from 2017–2019

	Number of publications from 2017–2019									
	None		1–4		5–8		9–12		13 and above	
Publications	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Textbooks	28	32.6	28	32.6	21	24.4	6	7	3	3.5
Chapters in books	35	40.7	41	47.7	8	9.3	2	2.3	0	0
Single-authored articles	22	25.6	49	57	8	9.3	3	3.5	4	4.7
Co-authored articles	7	8.1	38	44.2	25	29.1	9	10.5	7	8.1
Patent and certified invention	74	86	12	14	0	0	0	0	0	0
Monographs	64	74.4	21	24.4	1	1.2	0	0	0	0
Technical reports	73	84.9	11	12.8	2	2.3	0	0	0	0
Peer-reviewed bulletin	63	73.3	22	25.6	1	1.2	0	0	0	0
Conference proceedings	20	23.3	53	61.6	7	8.1	2	2.3	4	4.7

(14%) of the respondents have 1–4 patents and certified invention. This observation shows that the majority of the respondents do not have patents orcertified inventions. There is also the likelihood that most of them do not have the appropriate application of patent or the need to patent their innovative research observations. In addition, though there are some innovative areas in the field of library science, they do not see it necessary to certify their innovations. For monographs, the majority of the respondents do not have any published, which is also the case for technical reports and peer-reviewed bulletins. As for conference proceedings, the majority of the respondents 53 (61.6%) had publications in 1–4 conference proceedings, as it is relevant to their career to attend conferences.

The findings from Table 4 therefore show that the majority of the respondents are productive only in publications such as textbooks, chapters in a book, single-authored articles, co-authored articles, and conference proceedings. Some of the respondents also have peer- reviewed journals and monographs, while few of the respondents have patents/certified interventions or technical reports. Following the requirement for promotion that 10 points, which is equivalent to five papers, is required to move from assistant lecturer to lecturer II, it could be deduced that lecturers are productive because those who have 1–4 chapters in a book may also have 1–4 in the single-authored, co-authored, and/or conference proceedings categories, which, when put together holistically, might amount to 9–12 publications in three years. This shows a moderately high publication output in specific areas that might be of benefit to the researchers.

This finding echoes that of Okiki and Mabawonku (2013), who found that academic staff are productive in learned journals, conference papers, and chapters in a book but are

less so in publishing patents. The reports of Okpe et al. (2013) and Nwosu et al. (2015) also support this present study, as they found that academic staff productivity is moderate and high, respectively. On the contrary, the study of Adeyemi (2009) revealed that the publication output of academic staff is low. The reason for this contradiction could be the difference in study area, institution, and variation in the time of study. All the past studies are related to this present study as they all investigated publication output of academic staff/lecturers. From this present study, since the publication output of library and information science lecturers is higher in some of the items sampled than others, it is an indication that those items are more beneficial to their career and they are more conversant and/or interested in those areas where they published, so their publication count is higher in some specified items than others.

Table 5 reveals the information on the classifications of journals and the number of journals published between 2017 and 2019. It is shown in the table that the majority of the respondents have a good number of articles in local learned journals. This is also an indication that international recognition might be poor among these lecturers. Furthermore, the majority of the respondents had articles in indexed local journals and in international learned journals. For international indexed journals, just under half (48.8%) of the respondents had 1–4 articles published, while over one-quarter (31.4%) had none.

The findings from Table 5 therefore reveal that the majority of the respondents published about 1–4 articles in some kind of journal. While some respondents do not have articles in any of the journals sampled, it may be concluded that lecturers are productive with respect to the publication count on various journals sampled. This finding corresponds to the previous reports of Okiki and Mabawonku (2013) that academic staff had articles in learned journals. However, there are few findings on the numerical count of lecturers' publication in terms of this classification by local and international learned and indexed journals. Following Adomi and Mordi (2003), publishing in internationally recognized, peer-reviewed, indexed journals is of great importance for lecturers, most especially for visibility, so it is necessary to find out

Table 5: Classification of publications

	Number of publications from 2017–2019									
	None		1–4		5–8		9–12		13 and above	
Items	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Number of articles in learned journals (local)	6	7	46	53.3	21	24.4	6	7	7	8.1
Number of articles in indexed journals (local)	17	19.8	49	57	13	15.1	3	3.5	4	4.7
Number of articles in learned journal (international)	19	22.1	47	54.7	12	14	4	4.7	4	4.7
Number of articles in indexed journal (international)	27	31.4	42	48.8	7	8.1	6	7	4	4.7

if lecturers are involved in such publications. Adomi and Mordi's statement on the classifications of journals suitable for publication is related to this present study.

Table 6 reveals reasons that lecturers publish. As Table 6 shows, 70 (81.4%) respondents strongly agreed that promotion is the reason for publication, whereas 57 (66.3%) strongly agreed that the reason for publication is to contribute to knowledge. On both peer recognition and salary improvement, 48 (55.8%) of respondents strongly agreed, while to stay current, 45 (52.3%) of respondents strongly agreed as the reason lecturers publish. The table also shows that collaboration with other colleagues (50, 58.1%), creativity (40, 46.5%), and to secure a better job (47, 54.7%) are reasons that lecturers publish. This study therefore shows that a majority of the respondents strongly affirmed that promotion, contribution to knowledge, peer recognition, salary improvement and to stay current are the major reasons for publishing. Others indicated that they publish for creativity, to collaborate with other colleagues and to secure better jobs. The findings in Table 6 are similar to the views of Okiki (2011) that academic staff publish in order to share insight, demonstrate academic scholarship, gain recognition for creative thinking, develop a reputation for expertise, become a professor, get a better salary, get a reduced teaching workload, receive a promotion, build their profile, collaborate with others, and satisfy a need for creativity. It could be deduced from the present study that lecturers publish mainly for contribution to knowledge, peer recognition, salary improvement, and to stay current. These findings on reasons lecturers publish is meant to investigate individual opinions, which will then help to draw a general conclusion on why there is need for every lecturer to publish.

Table 7 reveals the barriers to publication output. It can be observed that the respondents strongly agreed that lack of institutional support (56, 65.1%), exorbitant publication fees (a high cost of publishing; 47, 54.7%), and the tedious process of submitting manuscripts (41, 47.7%) are the major barriers to publication output. It is also revealed that

Table 6: Reasons lecturers publish

	SA		A		D		SD	
Items	*n*	%	*n*	%	*n*	%	*n*	%
For promotion	70	81.4	15	17.4	1	1.2	-	-
Salary improvement	48	55.8	26	30.2	5	5.8	7	8.1
For creativity	34	39.5	40	46.5	9	10.5	3	3.5
To contribute to knowledge	57	66.3	28	32.6	1	1.2	-	-
For peer recognition	48	55.8	34	39.5	2	2.3	2	2.3
For collaboration with other colleagues	30	34.9	50	58.1	4	4.7	2	2.3
To secure a better job	27	31.4	47	54.7	7	8.1	5	5.8
To stay current	45	52.3	37	43	3	3.5	1	1.2

Note. SA = strongly agree; A = agree; D = disagree; SD = strongly disagree

the attitude of respondents to questionnaires, rejection of manuscripts by journals, time constraints, loss of questionnaires administered to respondents, searching for information to suit the contents of the work, and difficulty in journal selection for publication and poor data-interpretation skills are also barriers to the publication output of lecturers. This finding corroborates the study of Okonedo (2016) that the most prominent challenges faced by the respondents were time constraints, poor interpretation skills, exorbitant publication fees by management of journals, and rejection of manuscripts by journals. In other words, these problems hinder respondents from publishing in reputable or highly rated journals. Okonedo's finding is related to this study, as they all investigated challenges to publication output, but Okonedo's study was conducted on librarians in public universities in South West Nigeria while this present study is on LIS lecturers in Nigeria.

Table 8 provides information on the ANOVA on the significant difference in the number of publications of LIS lecturers in the various schools in the geopolitical areas. It was revealed that there is a statistically significant difference ($F(5, 80) = 68.597$, $p = 0.000$) in the number of publications of LIS lecturers in the various schools in the geopolitical areas.. A post-hoc comparison using the Tukey HSD test indicated that a significant difference exists between the mean score and standard deviation of library schools in North West ($M = 9.00$, $SD = 0.000$) and North East ($M = 9.33$, $SD = 0.516$) when compared with library schools in South-South ($M = 13.69$, $SD = 1.703$), South West ($M = 17.50$, $SD = 0.837$) and South East ($M = 24.83$, $SD = 4.926$), while a significant difference also exists between the mean score and standard deviation of library schools in North Central ($M = 10.00$, $SD = 0.000$) when compared with library schools in South West ($M = 17.50$, $SD = 0.837$) and South East ($M = 24.83$, $SD = 4.926$). Likewise, a statistically

Table 7: Barriers to publication output

	SA		A		D		SD	
Items	*n*	%	*n*	%	*n*	%	*n*	%
Tedious process of submitting manuscripts	41	47.7	34	39.5	6	7	5	5.8
Lack of institutional support for research	56	65.1	23	26.7	4	4.7	3	3.5
Loss of questionnaire administered to respondents	21	24.4	39	45.3	13	15.1	13	15.1
Attitude of respondents to questionnaire	27	31.4	41	47.7	9	10.5	9	10.5
Difficulty in journal selection for publication	26	30.2	31	36	17	19.8	12	14
Rejection of manuscripts by journals	24	27.9	41	47.7	12	14	9	10.5
Searching for information to suit the contents of the work	28	32.6	35	40.7	10	11.6	13	15.1
Exorbitant publication fees	47	54.7	30	34.9	6	7	3	3.5
Poor data interpretation skills	23	26.7	31	36	17	19.8	15	17.4
Time constraints	27	31.4	41	47.7	7	8.1	11	12.8

Note. SA = strongly agree; A = agree; D = disagree; SD = strongly disagree

Table 8: ANOVA on the significant difference in the number of publications and various library schools

	Sum of squares	Df	Mean square	F	Sig.
Between groups	2336.476	5	467.295	68.597	0.000
Within groups	544.978	80	6.812		
Total	2881.453	85			

Note. α = 0.05

Homogeneous Subsets: Number of publications—Tukey HSD

		Subset for alpha = 0.05			
Library schools	*n*	1	2	3	4
Library schools in North West	3	9.00			
Library schools in North East	6	9.33			
Library schools in North Central	8	10.00	10.00		
Library schools in South-South	45		13.69	13.69	
Library schools in South West	6			17.50	
Library schools in South East	18				24.83
Significance		0.980	0.103	0.084	1.000

Notes. Means for groups in homogeneous subsets are displayed; harmonic mean sample size = 6.901; the group sizes are unequal; the harmonic mean of the group sizes is used; Type I error levels are not guaranteed.

significant difference exists between the mean score and standard deviation of library schools in South-South (M = 13.69, SD = 1.703) and thoseof South East (M = 24.83, SD = 4.926). Therefore, a statistically significant difference exists in the number of publications of LIS lecturers in the various schools in the geopolitical areas (see Appendix for details).

Conclusion and recommendations

The publication output of lecturers in universities is said to be a major factor for lecturers' growth or development. Observations of low publication output of lecturers is associated with lack of funding and poor collaboration, thereby leading to non-promotion of lecturers. It has been shown in this study that lecturers are productive in some areas that may be of more importance to them than others, but the problems of funding and poor collaboration still exist. Some other factors hindering publication output found in the study are time constraints, poor data-interpretation skills, exorbitant publication fees by management of journals, rejection of manuscripts by journals'editorial boards.

The study therefore recommends that funds should be made available for lecturers who are ready to embark on quality research. In other words, it is a necessity to evenly fund and support lecturers' and researchers' innovative studies by governmental and non-governmental organizations. This should include funding of research or article publication costs and conference attendance for training of lecturers to meet the global research demand. Departments and institutions can also organize seminars or symposia on the need to collaborate in research and steps toward preparation of manuscripts suitable for publication in reputable journals to avoid rejection by journal management bodies. There should also be a reduction of workload for lecturers. If possible, lecturers may be granted one to several months of leave/vacation to ease work pressure and the demands of their jobs.

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Appendix: Raw statistics and calculations Descriptives

Table A1: Number of publications: Descriptives

	N	M	SD	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
Library Schools in North West	3	9.00	0.000	0.000	9.00	9.00	9	9
Library Schools in North East	6	9.33	0.516	0.211	8.79	9.88	9	10
Library Schools in North Central	8	10.00	0.000	0.000	10.00	10.00	10	10
Library Schools in South-South	45	13.69	1.703	0.254	13.18	14.20	10	16
Library Schools in South West	6	17.50	0.837	0.342	16.62	18.38	16	18
Library Schools in South East	18	24.83	4.926	1.161	22.38	27.28	18	33
Total	86	15.48	5.822	0.628	14.23	16.73	9	33

Table A2: Number of publications: Test of homogeneity of variances

Levene statistic	df1	df2	Sig.
15.401	5	80	0.000

Post Hoc Tests

Table A3: Multiple Comparisons: Tukey HSD

(I) Library Schools	(J) Library Schools	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Library Schools in North West	Library Schools in North East	−0.333	1.846	1.000	−5.72	5.06
	Library Schools in North Central	−1.000	1.767	0.993	−6.16	4.16
	Library Schools in South-South	−4.689*	1.556	0.039	−9.23	−0.14
	Library Schools in South West	−8.500*	1.846	0.000	−13.89	−3.11
	Library Schools in South East	−15.833*	1.628	0.000	−20.59	−11.08
Library Schools in North East	Library Schools in North West	0.333	1.846	1.000	−5.06	5.72
	Library Schools in North Central	−0.667	1.410	0.997	−4.78	3.45
	Library Schools in South-South	−4.356*	1.134	0.003	−7.67	−1.04
	Library Schools in South West	−8.167*	1.507	0.000	−12.57	−3.77
	Library Schools in South East	−15.500*	1.230	0.000	−19.09	−11.91

(*Continued*)

(I) Library Schools	(J) Library Schools	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Library Schools in North Central	Library Schools in North West	1.000	1.767	0.993	−4.16	6.16
	Library Schools in North East	0.667	1.410	0.997	−3.45	4.78
	Library Schools in South-South	−3.689*	1.001	0.005	−6.61	−0.76
	Library Schools in South West	−7.500*	1.410	0.000	−11.62	−3.38
	Library Schools in South East	−14.833*	1.109	0.000	−18.07	−11.59
Library Schools in South-South	Library Schools in North West	4.689*	1.556	0.039	0.14	9.23
	Library Schools in North East	4.356*	1.134	0.003	1.04	7.67
	Library Schools in North Central	3.689*	1.001	0.005	0.76	6.61
	Library Schools in South West	−3.811*	1.134	0.015	−7.12	−0.50
	Library Schools in South East	−11.144*	0.728	0.000	−13.27	−9.02
Library Schools in South West	Library Schools in North West	8.500*	1.846	0.000	3.11	13.89
	Library Schools in North East	8.167*	1.507	0.000	3.77	12.57
	Library Schools in North Central	7.500*	1.410	0.000	3.38	11.62
	Library Schools in South-South	3.811*	1.134	0.015	0.50	7.12
	Library Schools in South East	−7.333*	1.230	0.000	−10.93	−3.74
Library Schools in South East	Library Schools in North West	15.833*	1.628	0.000	11.08	20.59
	Library Schools in North East	15.500*	1.230	0.000	11.91	19.09
	Library Schools in North Central	14.833*	1.109	0.000	11.59	18.07
	Library Schools in South-South	11.144*	0.728	0.000	9.02	13.27
	Library Schools in South West	7.333*	1.230	0.000	3.74	10.93

*p = 0.05