Information Literacy Competencies as a Predictor of Research Productivity of Librarians in Universities in South-South, Nigeria.

Ideh Peace Nkemdilim

Michael and Cecilia Ibru University Library,
Agbarha-Otor, Ugheli, Delta State, Nigeria
ugbohpeace@yahoo.com

O. N Ekoko

Department of Library and Information Science,
Delta State University, Abraka.
onomealakpodia@gmail.com

Abstract

At this study, information literacy skills were examined as a potential predictor of librarians' research output at South-South universities in Nigeria. The study employed a descriptive survey research design. 217 librarians from the university libraries of the 16 public universities in South-South, Nigeria, made up the study's population. The study employed total enumeration sampling methods. Data gathering involved the use of a questionnaire. Utilising frequency, percentage, and statistical mean, data were analysed. The Pearson Product-Moment Correlation Coefficient (PPMCC) was used to test the hypothesis at the significance level of 0.05. The research discovered that university librarians possessed a high level of information literacy skills, including the capacity to confirm reputable authors and source credibility of any information source, the capacity to cite all consulted materials while using information materials for research purposes, and expertise in the creation of bibliographies and references from the materials retrieved. Publication output was highest for journal articles while others such as technical reports and text books were low. Information literacy skills and research output among university librarians in South-South, Nigeria, are significantly correlated. The study consequently advised librarians to take advantage of any techniques that can raise their level of information literacy proficiency. The librarians should receive regular training in the modern methods of conducting research.

Keywords: Information Literacy, Research Productivity, Academic Librarians.

Introduction

The labour of librarians all across the world contributes significantly to the accumulation and distribution of knowledge. Librarians make a great effort to meet their patrons' informational requirements by providing a variety of informational resources. Universities are founded on three pillars: teaching, research, and community service, and these functions are supported by them.

University libraries have been revealed to provide information not only to students (both undergraduate and postgraduate), but also to staff members and other people from outside the university who have authorization to use the library. University libraries are generally established to support the missions of universities, including teaching, research, and community service. Among their objectives are the creation and upkeep of information resources (both print and non-print), as well as their availability and accessibility to all. (Okiki, 2013).

If research findings are made available to the broader public, the research will have made a reasonable contribution to the advancement of knowledge. According to Musa, Sanusi Yusuf, and Shittu (2015), the fundamental goal of publishing research findings is to create opportunities for peer access to the research, which opens the door to discussion with other academics who are interested in research related to the topic at hand. Conducting research, according to Bawden, Devon, and Sinclair (2015), is an essential and unavoidable aspect of the academic experience at any and all educational institutions, particularly universities.

According to Damasco and Hodges (2012), librarians' research output is mostly determined by the quality and quantity of research published in scientific channels. Academic librarians are not evaluated using the same standards as their faculty counterparts, according to Tsafe, Chiya, and Aminu (2016). This is especially true in university libraries. The reason for this is that librarians working in academic libraries may not have the education or opportunities to do research that meets current acceptable standards.

Information literacy is becoming increasingly crucial in today's environment, which is rapidly developing due to the expansion of information resources and technology (Warschauer, 2014). Users of information have a responsibility to verify the information they find in terms of its accuracy, authenticity, and utility (Madu & Dike, 2012).

Statement of the Problem

Academic librarians are in high demand all around the world to participate in research and communicate their findings to the rest of the world via channels regarded as acceptable for scientific information distribution. When the results of librarians' research are made public, it is utilised as a consideration in evaluating the librarians' research output. Despite widespread belief that the importance of high research

productivity among librarians cannot be overstated, studies have shown that the quantity and value of research conducted by librarians in universities around the world is decreasing at an alarming rate (Nwosu, Obiamalu, & Udem, 2015; Cadez, Dimovski, & Groff, 2017; Simisaye & Popoola, 2019).

It is probable that a lack of information literacy is to blame for the recent decline in librarians' research productivity. Based on the findings of numerous intellectual works, it is apparent that the availability of information resources has the potential to considerably boost librarians' research output. Despite this, a concerning issue, such as a low level of information literacy among academics in Nigeria, including librarians, has been identified (Okiki, 2013). Despite the fact that librarians are the stewards of information resources, many of them have trouble locating the information sources they need for research and scholarship, which reduces the amount of helpful material they unearth via their research. Therefore, the purpose of this paper is to investigate the relationship between information literacy skills and university librarians' research output in South-South, Nigeria.

The objectives of the Study

The objectives are to:
1. investigate the information literacy competencies of librarians in universities in South-South, Nigeria;
2. find out the level of information literacy competencies of librarians in universities;
3. Determine the level of research productivity of librarians in universities.

Hypothesis

There is no significant relationship between information literacy competencies and the level of research productivity of university librarians in South-South, Nigeria

Literature Review

Information Literacy Competencies of University Librarians

Individuals who are information literate, according to Tsafe, Chiya, and Aminu (2016), are adaptable, have the ability to change to the dynamics of an organisation, and are capable of performing competently both on their own and as members of a team. A person who is information literate understands how to learn and can further their education throughout their lives. According to Haq and Satti's (2021) findings, "the librarians in Pakistan had a reasonable degree of information literacy proficiency." According to the study's findings, the librarians surveyed had some expertise in accessing and analysing information, and they were very capable when it came to utilising information.

People who are information literate should be able to think critically about their own behaviours and be willing to continue their education throughout their lives. Ilogho (2014) conducted research on university librarians' information search skills in Ogun State, Nigeria. The universities under consideration are in Nigeria. A questionnaire was used to collect information for the investigation. It was revealed that the vast majority of librarians had a high level of proficiency in accessing needed information resources. Respondents in a related study by Dhankar (2015) titled "evaluating the effect of emotional intelligence on productivity" reported a lack of evaluative competence. The respondents lacked the capacity to properly use search tools and perform information searches that made the best use of their available resources. According to a study conducted by Hazrati, Gavgani, Ghorbanian, Rahatrad, and Vahedi (2014) to determine faculty members' information literacy proficiency in using medical information resources, "lecturers possess a higher level of retrieving information and appraisal skills than skills of using information decently."

As the relevance of information literacy in universities throughout the world grows, librarians in Nigeria must design courses and devise strategies to appropriately incorporate the training into the university curriculum. This is vital since information literacy is becoming a more important topic at universities around the world.

Level of Information Literacy Competencies of University Librarians

The ability to recognise the need for information, as well as the ability to notice, locate, assess, organise, develop, use, and present information fairly to address issues or circumstances related to research activities that lead to research publications, are all examples of information literacy abilities. These abilities are required to solve problems or situations that may result in research articles. The extent to which university libraries at Nigerian universities make available internet databases is one indicator of the breadth and depth of librarians' information literacy in the context of the academic setting. Simisaye and Popoola (2019). Nonetheless, according to the Southern Association of Colleges and Schools (2020), librarians' understanding of the impact of increased access to electronic information resources is generally inadequate. As a result, there is a commensurate drift in the devices that mediate between a growing supply of electronic materials and their usage for academic objectives.

According to Oyewo and Samuel (2016), information literacy skills are a continuing scholarly practice that includes abilities and aptitude as well as necessary knowledge about norms and claims on a variety of other words. This point of view was expressed in their work "Information Literacy Competencies: A Continuous Scholarly Practice." It is obvious that those who use information in the modern world are expected to have information literacy skills in order to be efficient, recognise when information is needed, comprehend it, and apply it in the context of the abundantly available information that exists in the modern information era. Okiki (2013) emphasized that "the need to locate, assess, and effectively apply information has always been associated with librarians." Because of increased understanding of educational development and the Internet's access to un-edited scholarly resources, librarians

working in educational settings all over the world are confronted with an overwhelming number of diverse and abundant information sources to choose from. As a result, librarians should have the same set of skills required to make successful use of the material to which they have access.

According to Thanuskodi (2019), information literacy competencies support learners in preparing for societal confrontations by assisting in problem solving, decision making, creative and imaginative thinking, and collaborative studies. Competencies in information literacy involve skilled and conscientious thinking, which promotes sound judgement because it is dependent on context awareness. It accomplishes this by employing a number of techniques, processes, and procedures, all of which contribute to the individual's development. According to Baniontye and Vaskevicene (2016) the vast majority of Lithuania's research libraries and government-funded libraries "offer routine training for users of their information resources." According to the study's findings, there was an almost instantaneous increase in the number of users following the presentation.

Nwosu, Obiamalu, and Udem (2015) investigated the "Correlation between information literacy competencies and publication productivity of teaching staff at Nnamdi Azikiwe University, Awka, Nigeria." This study's findings were published in the scholarly journal Information Literacy. A correlational strategy to research was used in this study. It was discovered that the academic staff possesses a sufficient level of information literacy. According to the hypothesis tested, there is a positive relationship between the amount of research generated by teaching staff and their level of information literacy. According to the study, the academic staff's research output varies depending on the participants' levels of information literacy.

Level of Research Productivity of University Librarians

Due to a lack of relevant statistics, evaluating the research talents of librarians at any given university is challenging. However, during the "research boom" era (1960s-mid-1980s), professors teaching at Nigerian universities were considered active researchers if they had published multiple textbooks and journal articles. At the time, Nigerian researchers gained international recognition for their groundbreaking work, which they presented at academic conferences around the world (Yusuf, 2012). Research funding in Nigerian institutions has been declining since the late 1980s. For example, the number of Nigerian scientific publications declined from 1,062 to 711 between 1981 and 1995. (Bako, 2005).

Okeji (2018) used bibliometric approaches to examine the scholarly production of Nigerian LIS librarians from January 2000 to March 2018. The study employed 1,016 publications published between 2000 and March 2018, collected from the most recent indexes of Journals in Education and Library, Information Science, and Technology Abstract. The researchers discovered that just a small percentage of Nigerian authors were involved in LIS during the study period. In the year 2021, Haq and Satti examined the works of Pakistani authors who had published in the field of LIS in

2019. Pakistani writers produced 154 LIS-related works this year, according to research. Furthermore, the majority of the sources were published in periodicals that were not in English. Only mediocre literature is published in the country.

Ogbomo and Adekoya (2019) researched "librarians' academic workload and research output in university libraries in South-west, Nigeria" (p. 67). The descriptive survey was used as the study's research strategy. The study enlisted the participation of 222 librarians from public universities in South-West Nigeria. According to the survey, librarians' research output comprises of book reviews, conference proceedings, reports, and journal articles. The poll also discovered that librarians' research productivity was quite low. The librarians were encouraged to conduct more research.

Tsafe, Chiya, and Aminu undertook a "bibliometric analysis of librarians' scholarly outputs in Nigerian universities between 2000 and 2012" (p. 3). During the time period covered by this study, 373 different types of publications were discovered. Furthermore, Ocholla, Ocholla, and Onyancha (2013) discovered that "regarding research contribution by librarians' status, it was evident that the most prolific librarians are the ones in management positions, which means that they equally probably have a number of years working in the library."

Okafor (2011) used published works to assess the contributions to knowledge produced by six public institutions in Southern Nigeria between 1997 and 2006 (the institutions of Benin, Ibadan, Agriculture, Abeokuta, Nnamdi Azikwe, Nsukka, and Uyo). The study was founded on information about the institutions' research output. The University of Benin came out on top when it comes to research productivity as assessed by the number of scholarly articles generated per student. The University of Uyo has the lowest ten-year average. The most crucial thing to remember is that each member of the teaching staff will only be permitted to publish one article per year. In comparison to other countries, this is astonishingly low.

Methods

The descriptive research design was employed for the study. The population of the study was 217 librarians in the university libraries of the 16 public universities in South-South, Nigeria before the end of year 2021. These included seven federal and nine state universities. The details are presented in Table 1.

S/N	Name of Library	Ownership	No. of Libra rians
1	John Harris Library, University of Benin, Benin City, Edo State	Federal Government	27
2	University of Port Harcourt Library, Port Harcourt, Rivers State	Federal Government	22
3	University of Uyo Library, Akwa Ibom State	Federal State	19
4	Federal University of Petroleum Resources Library,	Federal Government	8
5	University of Calabar Library, Calabar, Cross Rivers State	Federal Government	16
6	Federal University Otu-Oke Library, Otu-Oke, Bayelsa State	Federal Government	11
7	Nigeria Maritime University, Okerenkoko, Delta State	Federal Government	8
8	Delta State University Library, Abraka, Delta State	State Government	11
9	Ambrose Alli University Library, Ekpoma, Edo State	State Government	12
10	Niger Delta University Library, Wilberforce, Bayelsa State	State Government	26
11	Dame Patience Jonathan Automated Library, Ignatius Ajuru University of Education, Rumublumeni, Rivers State	State Government	9
12	River State University Library, Port Harcourt, Rivers State	State Government	14
13	University of Africa Library, Toru-Orua, Bayelsa State	State Government	6
14	Bayelsa Medical University Library, Yenagoa, Bayelsa State	State Government	4
15	University of Africa Library, Toru-Orua, Bayelsa State	State Government	6
16	Akwa Ibom State University Library, Ikot Ekpene, Akwa Ibom	State Government	12
Total			**217**

The 217 librarians in South-South, Nigeria, served as the study's sample population. For the investigation, total enumeration sampling methods were employed. The data obtained from the questionnaire given to the respondents was analysed using statistical tools, for research questions 1, simple percentage was used while research questions 2 and 3 were analysed using statistical mean. The hypothesis was tested using the Pearson's Product Moment Correlation Coefficient at a significance level of 0.05,

Results

Information literacy competencies of university librarians in South-South, Nigeria

Table 2: Information literacy competencies of the university librarians

Information Literacy Competencies	Agree		Disagree		Total	
	No.	%	No.	%	No.	%
1. Ability to verify the reputable of authors and source credibility of any information source	125	95.4	6	4.6	131	100
2. Ability to cite all consulted materials while utilizing information materials for research purposes	124	94.7	7	5.3	131	100
3. Understand of the nitty-gritty in copyright laws	123	93.9	8	6.1	131	100
4. Knowledge of how to compile bibliographies and references from the materials retrieved	123	93.9	8	6.1	131	100
5. Ability to appraise information materials retrieved	123	93.9	8	6.1	131	100
6. Ability to use controlled vocabulary while searching for information	121	92.4	10	7.6	131	100
7. Ability to know where and how to find any information materials	120	91.6	11	8.4	131	100
8. Knowledge to identify predatory journals	119	90.8	12	9.2	131	100
9. Requisite knowledge of searching techniques	119	90.8	12	9.2	131	100
10. Ability to repackage information retrieved by adding value to it	118	90.1	13	9.9	131	100
11. Ability to utilize the library catalogue for information retrieval	118	90.1	13	9.9	131	100
12. Proficiency to use keywords search for materials on any research topic	116	88.5	15	11.5	131	100

Table 2 summarises the information literacy skills acquired by university librarians in South-South Nigeria. According to the findings, the vast majority of respondents believe they can verify the reputable of authors and source credibility of any information source (125, 95.4%), that they can cite all consulted materials while using information materials for research purposes (124, 94.7%), that they understand the nitty-gritty of copyright laws (123, 93.9%), and that they know how to compile bibliographies and references from the materials retrieved (123, 93.9%). A minimum degree of competency is necessary, which is the capacity to search for material on any study topic using keywords (116, 88.5%). In light of this, it can be concluded that librarians working in university libraries in Nigeria's South-South region possess the requisite information literacy abilities.

The level of information literacy competencies of university librarians in South-South, Nigeria

Table 3 Level of information literacy competencies of university librarians

S/N	Information literacy competencies	Very High Level	High Level	Low Level	Very Low Level	Mean (X)
1.	Information fluency	38	89	4	0	3.26
2.	Evaluation of information	34	92	5	0	3.22
3.	User training	33	94	4	0	3.22
4.	User education	33	93	5	0	3.21
5.	Information ethics	32	93	6	0	3.20
6.	Ability to search information online	33	89	9	0	3.18
7.	Information competencies	31	93	6	1	3.18
8.	Bibliographic instruction	32	91	6	2	3.17
9.	Digital literacy	30	90	11	0	3.15
10.	Ability to use information for research	32	88	8	3	3.14
	Average Mean					2.88
	Criterion Mean					2.50

Table 3 depicts the amount of information literacy competence exhibited by librarians working in Nigeria's South-South university libraries. Because the average mean of 2.88 is higher than the criterion mean of 2.50, one could argue that librarians working in university libraries in Nigeria's South-South region have a satisfactory level of information literacy competence. The most significant mean value is 3.26 for information fluency. Following this is the evaluation of the information (3.22), user education (3.21), and user training (3.22). Regardless, the ability to apply one's knowledge in one's studies has the lowest mean value of 2.88.

Level research productivity of the university librarians in South-south, Nigeria.

Table 4: Level of research productivity of the university librarians

Level of Research Productivity of Librarians	Very High Level	High Level	Low Level	Very Low Level	Mean (X)
Journal Articles	39	89	3	0	3.27
Technical reports	19	29	34	49	2.14
Monographs	10	27	35	59	1.91
Scientific peer-reviewed bulletin	15	18	37	61	1.90
Occasion papers	7	31	34	59	1.89
Working papers	7	30	35	59	1.89
Conference papers	14	14	41	62	1.85
Chapters in books	13	16	38	64	1.83
Patents	6	23	43	59	1.82
Ongoing research	3	26	43	59	1.79
Co-authored textbooks	10	15	41	65	1.77
Textbooks (single authorship)	5	24	37	65	1.76
Average Mean					1.99
Criterion Mean					2.50

Table 4 shows the level of research output of university librarians in South-South Nigeria for the years 2018, 2019, and 2020. Because the average mean of 1.99 is less than the criterion mean of 2.50, one could argue that the level of research productivity of librarians working in South-South Nigerian universities in 2018, 2019, and 2020 is low. This is due to the fact that the average mean is lower than the criterion mean. The mean values for all elements are lower than the average, with the exception of journal articles, which have a mean that is bigger than the average (3.27).

Hypothesis

Table 4: Relationship between information literacy competencies and research productivity of university librarians

		Information Literacy	Research Productivity Competencies
Information Literacy Competencies	Pearson Correlation	1	.133
	Sig. (2-tailed)		.035
	N	131	131
Research Productivity	Pearson Correlation	.133	1
	Sig. (2-tailed)	.035	
	N	131	131

From Table 5, the Pearson Product Moment Correlation Coefficient, which is 0.133. Given that the significant value (Sig.2-tailed) is 0.035, which is less than 0.05, it can be said that there is a significant link between information literacy skills and research output of university librarians in South-South, Nigeria. Because of this, the null hypothesis is disproved. This suggests that a rise in information literacy skills may follow a rise in their librarians' research output

Discussion of Findings

Information Literacy Competencies of University Librarians

According to the findings of a study on librarians' information literacy skills, the majority of them can perform the following tasks: verify credible authors and the source credibility of any information source; cite all consulted materials when using information materials for research purposes; comprehend the specifics of copyright laws; and know how to create bibliographies and references based on the materials that were retrieved. According to Anyaoku, Ezeani, and Osuigwe (2015), librarians should be able to evaluate the author reputation and source trustworthiness of any information source, as well as be able to cite all of the resources that were evaluated. Anyaoku, Ezeani, and Osuigwe (2015) data corroborate this conclusion. As a result, they concluded that "the onus is on 21st-century librarians to develop themselves and acquire the necessary skills that will enable them to confirm the reputable authors whose work can be cited, ascertain the trustworthiness of any information source, and at the same time cite all of the information resources consulted in the process of doing research" (p.98). This was the conclusion they reached as a result of their research.

This finding supports Anunobi and Udem (2015) claim that librarians have high proficiency in information literacy knowledge due to their moderate proficiency in finding and accessing information, high proficiency in evaluating information, and moderate proficiency in using information. According to the authors, librarians have a high competency in information literacy expertise due to their intermediate proficiency in discovering and accessing information.

Level of Information Literacy Competencies of University Librarians

According to the findings of this study, university librarians in Nigeria's South-South area have high levels of information literacy. Librarians have the ability to do online information searches, information skills, bibliography training, the ability to apply information to research, and digital literacy. Furthermore, they are highly skilled in information evaluation and processing. This supports Okiki (2013) notion that librarians have always been associated with the requirement to properly seek, assess, and apply information because they possess the high level of information literacy abilities required of information professionals. Librarians can search efficiently, assess material, and apply it effectively because they have the necessary information literacy skills.

This study's findings corroborate those of Okeji, Nwankwo, Anene, and Olorunfemi (2020). These researchers investigated the digital literacy skills of 21st-century librarians working in tertiary institution libraries in Anambra State and discovered that these librarians have these skills. The conclusions of Okeji, Nwankwo, Anene, and Olorunfemi (2020) are supported by the findings of this study.

Level of Research Productivity of university Librarians

According to the study's findings, the university librarians, in Nigeria's South-South universities published a considerable number of journal publications as a direct result of their researches. However, publications of technical reports, monographs, scientific peer-reviewed bulletins, occasion papers, working papers, conference papers, book chapters, patents, textbooks, are some of the sectors in which the librarians make little contribution. Tsafe, Chiya, and Aminu (2012) conducted a bibliometric examination of university librarians' scholarly publications in Nigeria between 2000 and 2012 and discovered that librarians' research output was high in the field of journal articles, which corroborated their findings. Despite this, the librarians' research outputs, which comprised conference articles, seminar papers, and edited volumes, were modest.

Relationship between information literacy competencies and the level of research productivity

The study found significant link between information literacy skills and research output of university librarians in South-South, this suggests a possible beneficial effect of information literacy skills for increasing librarians research output. The result is similar to the result obtained by Olakunle & Olanrewaju, (2019).) that found a

significant relationship between information literacy skills and research productivity of academic staff in Nigeria, Nwosu, O. C., Obiamalu, A. R., & Udem, O. K. (2015). also found a significant relationship between the information literacy skills possessed by the academic staff of Nnamdi Azikiwe University, Awka and their research output.

Recommendations

The following suggestion is offered in light of the study's findings:
The level of information literacy skills that librarians maintain should be strong, and they should be driven to increase research productivity.

Conclusion

This study examines the research productivity and information literacy skills of university librarians. Librarians working in university libraries in Nigeria's South-South region have a satisfactory level of information literacy competence. They published a considerable number of journal publications However, publications of other literature such as technical reports, monographs, textbooks, was low. significant link between information literacy skills and research output of university librarians in South-South, in universities in South-South, Nigeria, there was a significant correlation between librarians' information literacy skills and research output, indicating that raising librarians' information literacy skills may raise their research output.

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