

Evaluation and Use of Needed Information as Correlates Research Productivity among Lecturers in Federal Universities in North-West, Nigeria

Auwalu Muhammad Giginyu*, A. U. Echedom**

Abstract

Information must be gathered and interpreted for research purposes. With the development of Information Communication Technologies (ICT), anyone could publish anything they wanted, and the legitimacy of the content on web pages is not guaranteed by any supervising body or regulatory entity. The internet has a lot of reliable information, but it also contains a lot of dubious items. This calls for the acquisition of skills that enable lecturers to search and select the best information. The paper examined evaluation and use of needed information as correlates of research productivity among lecturers in federal universities in North-West, Nigeria. Two research questions guided the study and two hypotheses were tested at 0.05 level of significance. The descriptive correlational research design was employed. The population of the study was 9,839 lecturers of 12 federal universities in the north-west states of Nigeria. The sample size of the study was 368 lecturers, and a random selection of respondents was made from each university. The research instrument was administered to the respondents directly by the researchers. The returned copies of the questionnaire were analysed using inferential statistics. The Pearson Product Moment Correlation Coefficient r was used to answer the research questions and regression analysis was used to test the hypotheses. Findings from data analysis revealed that, there is significant weak positive relationship between lecturers' score on the ability to evaluate information and research productivity in the federal universities in the North-West, Nigeria. It was also found that there is a significant weak positive relationship between lecturers' scores on the ability to use needed information and research productivity in the federal universities in the North-West, Nigeria. Based on the

findings of the study, it was recommended among others that lecturers should engage on personal development by taking online courses and furthering their education in order to acquire information literacy skills required for research productivity. The university libraries should make available all necessary and sufficient information resources that will enhance lecturers' research productivity and make sure they are accessible.

Keywords: Evaluation, Needed Information Research Productivity, Federal Universities, Nigeria

Introduction

Conducting quality research requires possession of some skills. These skills include skills on the research process and information literacy skills. Therefore, information literacy refers to the overall ability to effectively access, evaluate, and use information to achieve a specific purpose or goal. It encompasses a broad range of knowledge, attitude and behaviour that enable individuals to navigate the complex information landscape and informed decision. Consequently, information literacy skills are the specific abilities and competencies that contribute to information literacy. These skills include: recognising information need, locating and accessing information, evaluating information quality and credibility, organising and synthesising information, using information ethically and legally, and communicating information effectively.

Evaluating information sources is an important part of the research process. In this technological era, not all

* Department of Library and Information Sciences, Bayero University, Kano, Nigeria. Email: amgiginyu.lis@buk.edu.ng

** Department of Library and Information Science, Nnamdi Azikiwe University, Awka, Nigeria.
Email: au.echedom@unizik.edu.ng

information is reliable or true, nor will all information be suitable for research. Information sources vary widely in their authority, accuracy, objectivity, currency, and coverage. Lecturers must acquire skills that enable them to critically evaluate the appropriateness of all types of information sources before using them as research data. The paper seeks to determine the relationship between lecturers' ability to evaluate and use information and their research productivity in federal universities in the North-West.

Statement of the Problem

A key factor in increasing university lecturers' research productivity is their evaluation and effective use of needed information. Nonetheless, a number of obstacles prevent the best evaluation and use of information and hinder university lecturers' research productivity. To effectively implement solutions that can foster research productivity, it is imperative to recognise and comprehend these challenges. Universities frequently struggle with issues such as inadequate infrastructure, outdated library materials, a lack of expertise in evaluating information sources, and a lack of resources for information and communication technologies. These limitations seriously impair lecturers' capacity to conduct excellent research, make a substantial contribution to the discovery of new information, and develop their research abilities. These setbacks make it more difficult for lecturers to progress in their careers. Therefore, this paper investigates evaluation and use of needed information as correlates of research productivity among lecturers in federal universities in North-West, Nigeria.

Review of Related Literature

Evaluation is the systematic process of determining the merit, worth, value, or significance of an item. Evaluation is an assessment of the reliability, credibility, accuracy, and currency of information sources to determine their suitability for a particular purpose (Arora, 2023). In simplest term evaluation is judgment regarding the quality of information. Information evaluation skill is very necessary in today's information society characterised with information overload. This skill will help lecturers to select the right information from the variety of sources that will satisfy their information needs. Anunobi and Udem

(2020) described evaluation of information as a process whereby an information user critically and competently assessed information by focusing on analysing and examining, extracting information; generalising and interprets information; evaluating accuracy and relevance of the retrieved information, organisation of information; arranges and categorises information; groups and organises the retrieved information; and determines the best and most useful information.

The need for information specialists and information seekers to be able to analyse material before using it has expanded due to the proliferation of information resources brought on by the development of the Internet and other technologies. According to Ijeh (2020), there is a need for information evaluation because there are many pieces of information out there that are false or spread fake news. Making poor decisions as a result of using such inaccurate information. Therefore, in order to provide effective research support services, librarians must be able to assess information and information sources (Erhabor, 2019).

According to Devi and Devi (2015), lecturers' ability to evaluate information also depends on their familiarity with the evaluation criteria. The available information can be evaluated based on different criteria, such as authenticity; it should be found out whether the collected information is authentic or not. It can be checked by the author, publisher, or the institution from whom the information came in. Accuracy is another criterion for the evaluation of information resources. It can be checked to avoid certain bias and prejudice. The next thing to consider when evaluating information resources is the currency of the information. It has to be ensured that the collected information is the current (Amna & Mumtaz, 2018). Blakeslee (2004) developed the Currency, Relevance, Authority, Accuracy, and Purpose (CRAAP) test that information seekers should use to evaluate information resources. Ajala (2019) noted that a lecturers' personal values, research experience, and educational background could affect their capacity to evaluate material for the delivery of research support services. Lecturers with significant research output and expertise may be better qualified to evaluate information and information sources. Thus, information literacy can improve the use of information and its usability for the provision of research productivity. Consequently, both individual and infrastructure-related aspects must be taken into account for optimal information access and utilisation.

Appropriate use of information is a critical issue in information literacy skills; after going through the above information literacy skills like identification of need, access, and evaluation, the next step is to use the information in order to satisfy the purpose for which the information was sought. Using the information may also include reporting of the information in an appropriate manner or medium and by sticking to the legal and ethical considerations of intellectual property rights. It is at this stage that lecturers use information accurately and creatively in the following ways: Find new ways to communicate, present, and use information; applies the retrieved information; learns, or internalises information as a personal knowledge; present the information product; understands ethical use of information; respect the legal use of information; and communicate the learning product with acknowledgement of intellectual property (Ikenwe & Anaehobi, 2020).

According to Achugbue (2018), lecturers' ability to use information effectively depends on their level of digital literacy, which is a subset of information literacy abilities. Utilising specific research-related information necessitates the use of interdisciplinary skill sets. A number of issues, including Information Communication Technologies (ICT) skills, lack of access to digital content, and regular hardware and software obsolescence, have a significant impact on lecturers' ability to use information, especially information in electronic form. This is true even though electronic resources frequently feature quick search and retrieval systems. Using internet search engines like Google and Yahoo, for example, enables lecturers to plan or make decisions by doing keyword searches of specific information. The ability of lecturers to use material is thus greatly influenced by their ability for information retrieval (Waldman, 2018).

However, according to the Association of College and Research Libraries (ACRL) (2005), having too much information may prevent lecturers from using it effectively. To effectively accomplish educational, economic, and other goals, librarians, researchers, and library users need a unique skill set in order to navigate the rapidly expanding information society. As a result, information literacy is seen as a way to combat data fog, which is the belief that having too much information might make our lives more difficult.

Additionally, Housewright and Schonfeld (2010) noted the way lecturers use information resources for research activities and teaching has changed as a result of advancements in ICT and scholarly use of information services. However, lecturers' reliance on network-level electronic resources has gradually increased since 2000, while their interest in using locally available methods for finding books, journals, and other materials has decreased. Accordingly, digital journals are unquestionably the preferred format for most faculty members, with print journals maybe still serving a limited purpose for those with certain needs that are otherwise insufficiently supplied.

Research Questions

The paper seeks to answer the following questions:

- What is the relationship between lecturers' ability to evaluate information and research productivity in federal universities in North-West Nigeria?
- What is the relationship between lecturers' ability to use needed information and research productivity in federal universities in North-West Nigeria?

Hypotheses

The following null hypotheses were formulated and tested for the study at the 0.05 level of significance.

H_{01} : There is no significant relationship between lecturers' score on ability to evaluate information and research productivity in federal universities in North-West, Nigeria.

H_{02} : There is no significant relationship between lecturers' scores on their ability to use needed information and research productivity in federal universities in North-West, Nigeria.

Methodology

The research design used was a descriptive correlational one. This design was selected because it enables the researcher to examine the relationship between study variables without modifying them. The number of lecturers at 12 federal universities in North-West Nigeria made up the study's population. These universities

include the Nigerian Defense Academy in Kaduna, Ahmadu Bello University in Zaria, Bayero University in Kano, Usmanu Danfodiyo University in Kano, Federal University in Birnin Kebbi, Federal University in Dutse, and Federal University in Dutsin-ma, Federal University, Gusau, Nigeria Police Academy, Wudil, Kano, Air force Institute of Technology, Kaduna, Federal University of Agriculture, Zuru, and Federal University of Technology, Babura. The total number of lecturers in these universities was 9,839 lecturers. There were 368 lecturers in the study's sample. A published table for selecting sample sizes was used to establish the sample size. A random selection of respondents was made from each university to ensure that the relative proportions of lecturers in the final sample matched those in the parent population. The achievement test and the structured questionnaire made up the study's instrument. The ability of lecturers to evaluate information and to use needed information were solicited in an achievement test. Conversely, a structured questionnaire gathered data regarding the lecturers'

research productivity. The research instrument was administered to the respondents directly by the researcher. This method has the advantage of guaranteeing the best result, clearing up any misunderstandings regarding any item in the instrument, expediting the procedure, and allowing the researcher to become acquainted with the surroundings. Inferential statistics were used to analyse the completed questionnaires. To address the research questions, the Pearson Product Moment Correlation Coefficient r was employed. This particular method was chosen because the goal of the study is to quantify the relationship between variables. To test the hypothesis, simple regression analysis was performed.

Answering Research Questions

Research Question: What is the relationship between lecturers' ability to evaluate information and research productivity in federal universities in North-West Nigeria?

Table 1: Pearson r on Lecturers' Ability to Evaluate Information and Research Productivity

Source of Variation	N	Lecturers' Ability to Evaluate Information	Research Productivity	Remarks
Lecturers' ability to evaluate information	333	1	.951	Strong Positive Relationship
Research productivity	333	.951	1	

Table 1 shows a strong positive relationship ($r = .951$) existing between lecturers' ability to evaluate information and research productivity in federal universities in North-West, Nigeria. This indicates that an increase in the lecturers' ability to evaluate information could result in a rise in their research productivity. This describes how

lecturers' high levels of research productivity are largely a result of their ability to evaluate information.

Research Question 2: What is the relationship between lecturers' ability to use needed information and research productivity in federal universities in North-West Nigeria?

Table 2: Pearson r on Lecturers' Ability to Use Needed Information and Research Productivity

Source of Variation	N	Lecturers' Ability to Use Needed Information	Research Productivity	Remarks
Lecturers' ability to use needed information	333	1	.107	Weak Positive Relationship
Research productivity	333	.107	1	

Table 2 shows a weak positive relationship ($r = .107$) existing between lecturers' ability to use needed information and research productivity in federal universities in North-West, Nigeria. This indicates that an increase/decrease in the lecturers' ability to use needed

information could result in a rise/fall in their research productivity. The fact that there is a weak positive correlation between the variables may indicate that variables other than ability to use needed information have an effect on research productivity.

Testing Hypotheses

H_{01} : There is no significant relationship between

lecturers' scores on ability to evaluate information and research productivity in federal universities in North-West, Nigeria.

Table 3: Relationship between Lecturers' Ability to Evaluate Information and Research Productivity

Source of Variation	N	Lecturers' Ability to Evaluate Information	Research Productivity	df	P-Value	Remark
Lecturers' ability to evaluate information	333	1	.242	240	.000	Sig.
Research productivity	333	.242	1			

Table 3 shows the result of correlation indicates that there was a significant weak positive relationship between lecturers' ability to evaluate information and research productivity in federal universities in North-West, Nigeria, $r = .242$, $df = 240$, $p = 0.00$. Therefore, the null hypothesis on no significant relationship between lecturers' ability to evaluate information and research productivity was rejected, implying that a significant relationship exists

between lecturers' ability to evaluate information and research productivity in the federal universities in North-West, Nigeria.

H_{02} : There is no significant relationship between lecturers' score on ability to use needed information and research productivity in federal universities in North-West, Nigeria.

Table 4: Relationship between Lecturers' Ability to Use Needed Information and Research Productivity

Source of Variation	N	Lecturers' Ability to Use Needed Information	Research Productivity	df	P-Value	Remark
Lecturers' ability to use needed information	333	1	.107	105	.050	Sig.
Research productivity	333	.107	1			

Table 4 shows the result of the correlation, indicating that there was a significant weak positive relationship between lecturers' ability to use information and research productivity in federal universities in North-West, Nigeria, $r = .107$, $df = 105$, $p = 0.050$. Therefore, the null hypothesis on no significant relationship between lecturers' ability to use information and research productivity was rejected. The implication of this is that a significant relationship exists between lecturers' ability to use needed information and research productivity in the federal universities in North-West, Nigeria.

Discussion of Results

Relationship between Ability to Evaluate Information and Research Productivity

The study also found a weak positive significant relationship between the ability to evaluate information and research productivity in universities. By implication, how well lecturers can evaluate the credibility,

relevance, authenticity, and accuracy of information materials will have a positive impact on their research productivity. An increase in lecturers' ability to evaluate information sources will contribute significantly to their research productivity. Consequently, evaluation of information and its sources is a crucial role for lecturers in universities, as one of the primary objectives of the conduct of research. Malik, Ali, Batool and Ameen (2022) affirmed that lecturers must build their confidence in evaluating and using multiple formats of information sources. Lecturers should develop sharp critical thinking skills in order to perform well on research projects. This activity is crucial to the overall research endeavour as it is considered as one of the stages of the research life cycle and by extension, one of the impetuses of research productivity. Even in the aspect of preparing lectures notes, lecturers evaluate information in order to ensure that only relevant and accurate materials are acquired for that purpose. Therefore, lecturers' ability to effectively evaluate information positions them rightly for research productivity.

Relationship between Ability to Use Needed Information and Research Productivity

The findings of the study revealed that there is a weak positive relationship between lecturers' ability to use needed information and research productivity in universities. Information is a fundamental element of every research endeavour. The findings supported that of Ajayi et al. (2023), which revealed a positive and significant correlation between research output and the usage of information resources by academics at private universities in South-South Nigeria. Consequently, a key to successful research productivity is the ability to use information for research. According to Madukoma et al. (2019), lecturers will be able to complete their research projects successfully if they can use information sources meticulously cite sources, and include quotations in their writing. This finding is considered to be very important in that for a lecturer to be recognised as a scholar he must have been conversant with varieties of information resources and utilise them effectively, must be very current and be abreast what information going on in his area of specialisation (Omolewa, 2008). The effective use of information in teaching and research activities among lecturers will boost their research outputs. Information use by lecturers as correlate of research productivity was further reinforce by Omenyi, Nwankwo and Odok (2023) when they demonstrated that lecturers should extensively use various types of information during the entire research process. It is worthy of note that, the purpose of seeking, accessing, evaluating and retrieving information on particular research need is utilisation, and as such research information must be put to its appropriate use for the successful completion of a research task.

Summary of Findings

Findings from data analysis revealed that:

- There is a significant weak positive relationship between lecturers' scores on the ability to evaluate information and research productivity in the federal universities in the North-West, Nigeria.
- There is significant weak positive relationship between lecturers' score on the ability to use needed

information and research productivity in the federal universities in the North-West, Nigeria.

Conclusion

Based on the results from the analysis of data and discussion of findings, it was concluded that lecturers in universities will produce more research when they are able to evaluate information. It was also deduced that lecturers' ability to use needed information will enhance the research productivity in universities.

Implications of the Study

The practical implications which can be deduced from this study based on the results include the following:

- The study provides empirical evidence that lecturers who are able to ascertain the credibility, relevance, accuracy, and authenticity of information will have high level of research productivity.
- Also, the study has empirically established that lecturers' ability to appropriately apply information enhance their research productivity.

Recommendations

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

- Lecturers should engage on personal development by taken online courses and furthering their education in order to acquire information literacy skills required for research productivity.
- Lecturers should improve their communication and interpersonal relation skills as an initial step towards improving research productivity.
- The university libraries should make available all necessary and sufficient information resources that will enhance lecturers' research productivity and make sure they are accessible.
- In order to help lecturers become comfortable with ICT and learn where to find essential material to support their research, university libraries should also arrange for training and retraining for all of them.

References

- Achugbue, B. D. (2018). Awareness and use of electronic information resources among lecturers in Croatia: Motivations and barriers. *Information Research*, 22(1), 3-2.
- Ajala, J. E. (2019). A survey of information and communication technology (ICT) literacy skills level of professional librarians in Delta state university library, Abraka, Nigeria. *Library and Information Practitioner (LIP)*, 5(1/2), 459-474.
- Ajayi, J. L., Haliso, Y., & Unegbu, V. E. (2023). Information literacy skills as predictor of electronic information resources use by lecturers in select private universities in South-West Nigeria. *Information Impact: Journal of Information and Knowledge Management*, 14(1), 40-53.
- Amna, D., & Mumtaz, T. (2018). Evaluation of information and usage patterns of faculty members in Jordan. *Learned Publishing*, 22(2), 126-144.
- Anunobi, C., & Udem, O. K. (2014). Information literacy competencies: a conceptual analysis. *Journal of Applied Information Science and Technology*, 7(2), 64-79.
- Arora, M. J. (2023) Criteria for evaluation of information in digital era: A study. *African Journal of Library and Information Studies*, 12(3), 33-39.
- Association of College and Research Libraries (ACRL). (2005). *Information literacy competency standards for Higher Education*. Retrieved from <http://www.ala.org/ala/acrl/standards/standards/standards.pdf> on 10th June 2023.
- Blakeslee, S. (2004). The CRAAP test. *Loex Quarterly*, 31(3), 4.
- Devi, H. M., & Devi, R. (2015). A study of ICT literacy skills and internet usage pattern of library users Malaysia. *Journal of Information Technology and Literacy Skills*, 12(9), 133-149.
- Erhabor, J. (2019). Knowledge and skills for the digital era academic library. *The Journal of Academic Librarianship*, 40(2), 163-170.
- Housewright, R., & Schonfeld, R. C. (2010). Faculty survey 2009: Key strategic insights for libraries, publishers, and societies. *Ithaca Strategic Consulting and Research*, 33(6).
- Ijeh, O. (2020). Digital literacy skills among librarians in university libraries in the 21st century in Edo and Delta states, Nigeria. *International Journal of Scientific and Technology Research*, 4(8), 1-20.
- Ikenwe, J. I., & Anaehobi, S. E. (2020). Ability to identify extent of information need and access information as correlates of utilization of digital library resources by lecturers. *Digital Library Perspectives*, 36(3), 265-279. doi:<https://doi.org/10.1108/DLP-03-2020-0015>
- Madukoma, E., Soyemi, O. D., Abolarin, M., & Ikonne, C. N. (2019). Information literacy skills, use of online collaborative tools and research productivity among management and social science lecturers in a private university in Nigeria. *Gateway Information Journal*, 20(2).
- Malik, A., Ali, S., Batool, S. H., & Ameen, K. (2022). Linking information literacy with research productivity: A survey of Mathematicians in Pakistan. *Portal: Libraries and the Academy*, 22(2), 475-498.
- Omenyi, A. S., Nwankwo, I. N., & Odok, L. O. (2023). Resource utilization and lecturers' research productivity in tertiary institution in Cross River State, Nigeria. *UNIZIK Journal of Educational Research and Policy Studies*, 16(5), 339-351.
- Omolewa, M. (2008). Most universities are in deplorable state. *The Nigeria Educational Time*, 20, 16-18.
- Waldman, M. (2018). Information needs, accessibility and utilization of library information resources as determinant of productivity among faculty members. *Brazilian Journal of Information Science*, 19(3), 49-56.