

## **Towards global visibility of scholarly communication of Nigerian university academics**

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### **Abstract**

One of the altmetrics for measuring the global ranking of universities by the Times Higher Education is web visibility of universities which is partly determined by research activities undertaken by them. Across the globe, universities are set up with tripartite mission of teaching, research and community service. The university system represents one of the most concentrated communities of scholars engaging in research activities leading to new discoveries, innovations and the creation of new knowledge, thus expanding the frontiers of knowledge. The output of research activities undertaken by academics when published and disseminated through various platforms to different community of practice, can be a basis for further research or the findings can be implemented, thus impacting the larger society, the nation and the global world at large. Despite the rigour of undergoing research projects, poor visibility of research output had been reported in some African studies. Hence, this study critically examines how scholarly communication among academics in Nigerian universities can gain global visibility and more impact. Based on these identified gaps, the paper examines scholarly communication of research outputs by reviewing related empirical studies on visibility of research outputs among university academics in Africa and Nigeria; and develops a framework for advancing global visibility of research outputs among Nigerian academics.

**Keywords:** Global visibility, scholarly communication, university academics, Nigerian

### **Introduction**

Across the globe, universities are set up with tripartite mission of teaching, research and community service. The university system represents one of the most concentrated communities of scholars engaging in research activities leading to new discoveries, innovations and the creation of new knowledge, thus expanding the frontiers of knowledge. The output of research activities undertaken by academics when published and disseminated through various platforms to different community of practice, can be a basis for further research or the findings can be implemented, thus impacting the larger society, the nation and the global world at large.

One of the altmetrics for measuring the global ranking of universities by the Times Higher Education is web visibility of universities which is partly determined by research

activities undertaken by them. Research covers 30% of the total score for university ranking, while citation covers 30% (Times Higher Education, 2022). This strongly implied that researchers must ensure that their research output get the appropriate audience and being highly cited. Orsu (2019) described research as an intellectual activity involving systematic analysis and creative works undertaken to facilitate knowledge gathering or revising existing knowledge by discovery of new facts with the inclusion of individual and society knowledge. This research takes the form of scientific research (for the pure and applied sciences and engineering), scholarly writing (social sciences and humanities) and creative activities (for the arts) which are carried out by academics.

Research presents a pace for development and increases the visibility of an institution and its ranking, with personal benefits to the

academic/researcher in the areas of career development, building a reputation and certifying the academic to be an authority in his/her field of specialisation, and not only this, but a far-reaching contribution to the community through the application of new knowledge and discoveries (Dang, 2017). Research output is the result or findings or report of research that is documented in print or electronically. It could be asserted that research is the engine that drives researcher's reputation, relevance and institutional recognition. The output of research are made available in print or electronic media in the form of scientific/technical reports, conference papers, projects, thesis, dissertations, posters, presentations, books, monographs, preprints (author's original manuscript), research data, journals, chapters in books after undergoing peer review by experts in related field. As posited by Gwynn (2019), enhanced access to research output can assist a country to achieve its developmental goals. The beauty of research is for its findings to be made available to community of practice, policy makers and major stakeholders in related field of study for practical application. Scientific innovations and discoveries that are revolutionising the world are product of research with empirical basis which are carried out and communicated to the world by scholars in academic or research communities through scholarly communication.

On the other hand, scholarly communication is the published results of researchers who have gained new knowledge in a discipline by the application of appropriate scientific theories and research methods (Gireesh, 2020). It entails sharing and disseminating research findings by academics, scholars and researchers so that they will be accessible and available to wider academic community and beyond. Scholarly communication is the process of disseminating the reports of scientific

investigation and research findings so as to make it readily available to academic community of scholars and other information users. Scholarly communication of research findings is the bedrock of relevance in the academia, this is because it promotes the reputation of researcher and his/her institution of affiliation.

Furthermore, the Oxford Advanced Learners Dictionary (2006) described visibility as the state of being easy to see. It is the quality of being visible. Research visibility is the presence of a research on the web; this entails the recognition, positioning, and citations that an author receives for conducting research in the scientific community (Andrea, Miguel, Frank & Andres, 2022). As noted by Abba and Anene (2022), visibility is how well published work is received by the academic or scientific community. Similarly, research visibility is how well other scientists and/or the general public know your research and you as a researcher (Lantsoght, 2018). To a large extent, research visibility determines the consultation, retrieval and citation of a document and it provides an indirect appraisal to the quality of publication. By leveraging on internet technology, research outputs can be made visible to large community of information users, scholars, academia and researchers.

Global visibility of research is making research output visible, accessible and available to a large community of scholars across the globe through the communication or dissemination of its findings via the World Wide Web. The visibility of research boosts its citation and impact. The prominence, relevance and reputation of a university is partly tied to its visibility to the global world. Not only this, visibility of research attracts more opportunities for collaboration with other academics. Publishing in reputable international journals can increase the chance of

research visibility. Unarguably, publishing rich-information content articles in scientific journal does not determine the level of citation and visibility. Conversely, a highly-cited research work may not necessarily be the best in terms of quality of its content, however, increasing visibility of research output depends on researcher's efforts through continuous dissemination of the findings for other researchers, scholars and information users.

Despite the rigours of undergoing research projects, poor visibility of research output had been reported in some African studies (Ati, 2017; Odeyemi, Odeyemi, Bamidele & Adebisi, 2019; Rodriguez, 2019; Garba & Saidu, 2020). For instance, Rodriguez (2019) reported high volumes of research outputs with substantive results that go unnoticed, due to a number of factors such as closed access of publishing outlet, analog format of report, while some are unread in library shelves where they were kept. Odeyemi et al. (2019); Garba and Saidu (2020) averred that there is low visibility of research output due to the fact that the findings of some research are arranged on the library shelves and attract only users of those libraries.

Based on these identified gaps, the main objective of this paper is to critically explore how the global visibility of scholarly communication of Nigerian university academics can be enhanced. The specific objectives are to: examine scholarly communication of research outputs; review related empirical studies on visibility of research outputs among university academics in Africa and Nigeria; and develop a framework for advancing global visibility of research outputs among Nigerian Academics. This paper is structured with three sub-headings in line with the objectives of the paper.

### **Scholarly communication of research outputs**

Academics in different field of studies in higher educational institutions like universities and research institutes are predominantly involved in research. However, a research process is not complete without communication (or dissemination) of the results or findings of such research to the local and global community. Reads, citation, and impact of any research findings is largely determined by the dissemination or communication of such research output. According to the Association of College & Research Libraries (ACRL) (2020), scholarly communication is the system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use.

Das (2015) described scholarly communication as the process of sharing, disseminating and publishing research findings of academics and researchers so that the generated academic contents are made available to the global academic communities. The distinguishing feature of scholarly communication is that the research findings disseminated are subject to peer-review by experts and at the same time, verified. Mooney (2016) reiterated that scientific findings are meant to be communicated and shared. By leveraging on the internet technology, scholarly communication of research output is taking a paradigm shift from traditional to online information.

### **Visibility of research outputs of university academics: The African and Nigerian experience**

In the African continent, studies by Dang (2017); Ezeoma and Onyanha (2017); Orsu (2019); reported low visibility of publications. Precisely, Dang (2017) reported that African Universities are producing less than 1% of global scholarly articles. Whereas, Vuong (2019)

noted that the applicability and value of research output is not respected in African countries as research findings are mostly kept in shelves. Furthermore, high disparity had been recorded between research conducted in developed and developing countries (Akidi, Osedo&Chukwueke, 2021). It must be pointed out that most published articles are published in predatory sites (outlets) requiring huge sum of money with low visibility and low impact on knowledge expansion.

Similarly, Ezeoma and Onyacha (2017) investigated the status of open access publishing in Africa, using a bibliometric approach by extracting data from Registry of Open Access Repositories (ROAR), Directory of Open Access Repositories (DOAR) and Directory of Open Access Journals (DOAJ). The study revealed Africa had 136 (3.4%) out of 4055 repositories in ROAR wherein South Africa ranks first with 47 (34.6%), followed by Kenya with 14 (10.3%), and Egypt and Nigeria with 11 (8.1%) repositories as these for countries ranked the top-most in Africa. However, poor visibilities of the universities were reported making African region to lag behind in global visibility of universities. Furthermore, the contribution of Africa in the global distribution of repositories in DOAR was reported to be comparably low with 4% proportion. While Africa contributed 696 OA journals, accounting for only 6.5% of the 10, 712 global journals contributions as reflected in DOAJ, and Nigeria had 36 (5.17%) journals in them all.

Recognising the fact that research is “sine qua non for development and transformation of the nation, the Federal Government of Nigeria approved the sum of N4,736,782,352.21 to award 219 research grants to successful participants under the Tertiary Education Trust Fund (TETFund) National Research Fund (NRF) programme for the 2021 grant cycle

(Suleiman, January 10, 2023). Therefore, it must be pointed out that huge amount of money is being invested for research training and the actual research, however, it is saddening to note that despite significant increase in research productivity and scientific publications, low performances are recorded in terms of the rate of citations, impact on communities, advancement in science, technology, medicine, as well as improvements in life of the citizens as is the case in other parts of the world.

Several researchers had expressed concerns over low visibility of research output conducted by academics in Nigerian universities. For instance, Abdu's (2023) study on online journal publishing collected data from Nigerian universities in 2021. The study adopted a semi-structured questionnaire to elicit responses on comprehensive list and details of journals published by various universities. Furthermore, researcher extracted journals published by Nigerian university and indexed in the Directory of Open Access Journal (DOAJ) and African Journals Online (AJOL). Responses from 29 universities were found usable and the study reported that the Open Journal System Platforms was used by only 151 Nigerian academics. The study further revealed the most of the journals were available in print format only and thus, they could not be accessed by other researchers outside the country or included in the major global indexes. It was indicated that the journals did not take advantage of the available support services such as AJOL, OJS, or DOAJ for online publishing.

In another study by Egbetokun et al.(2022) on the production of social science research in Nigeria, which was carried out between 2015 and 2017 adopted a mixed-method research approach of desk review, bibliometric analysis, questionnaire and observation to elicit responses on social science research

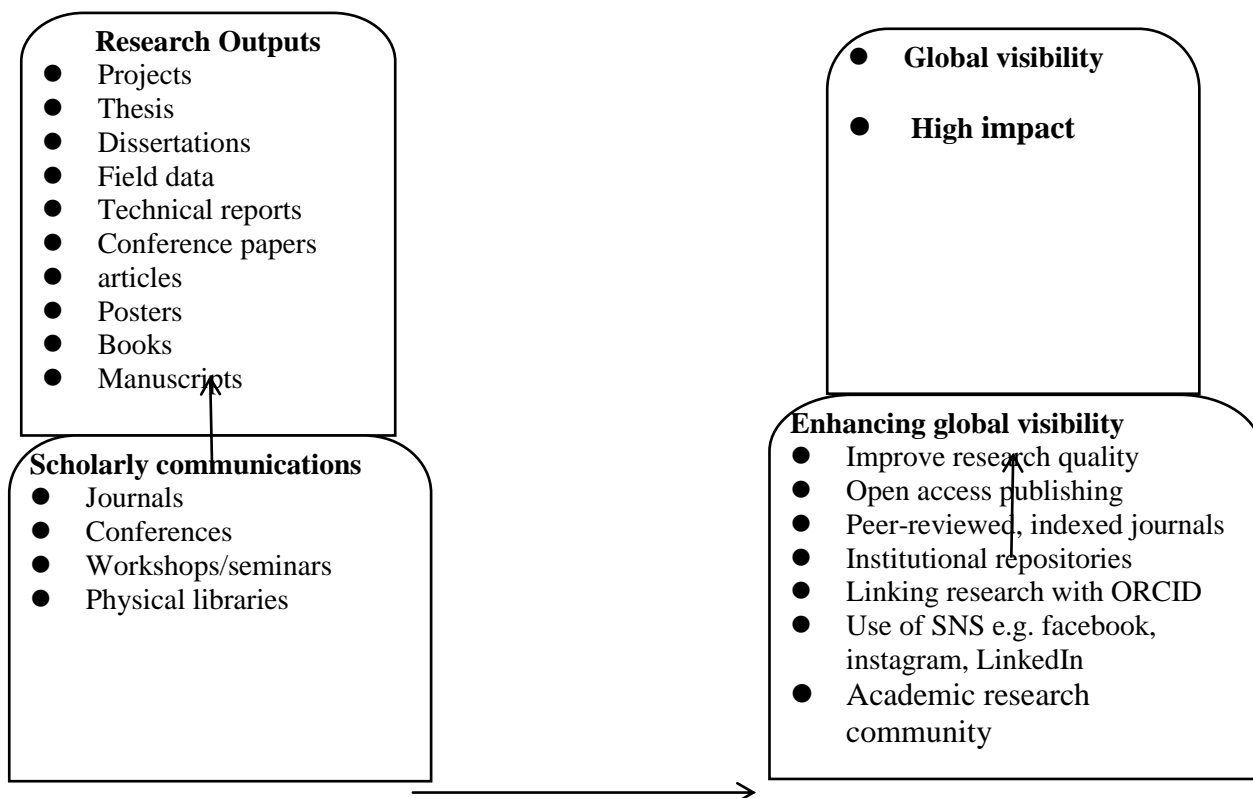
process in Nigeria. The study indicated among others that peer-reviewed research was quite high, because academic career advancement is tied to it. However, overall quality of research was reported to be low and visibility was poor due to increased demand for predatory journals and unethical research behaviours like plagiarism and publication slicing was high. Respondents were also dissatisfied by the research support services provided by institutions.

Conversely, during the COVID-19 pandemic, a bibliometric analysis of Nigeria’s contribution to scientific research by Adebisi and Pius (2022) was reported to be high and optimal. The study gathered information of Top ten research institutions based on COVID-19 from SCOPUS database between January 2020 and July 2022. During these periods, the overall global research output on COVID-19 was 281,589 publications, WHILE Nigeria outputs stood at 2,217

COVID-19 papers, representing 0.8% of the global research output with 16,665 citations, with an originality index of 68.4%. The study concluded that Nigerian academics contributed significantly to the advancement of knowledge on COVID-19.

Some of the challenges identified with Africa and Nigeria research outputs were predatory journal publishing, lack research integrity and credibility as a result of exaggerated research findings (Samuel &Aranha, 2018), poor quality and reliability of research findings, and lack of originality of research (Garba&Saidu, 2020). Others are plagiarism in research writing, not following research ethics, inappropriate use of citation and referencing styles, and put my name syndrome (Aiyebelehin, 2022) among others.

**Advancing global visibility of research output among Nigerian academics**



**Figure 1: Conceptual framework for enhancing global visibility of research output**

Source: Researchers’ designed (2023)

*i. Publishing in peer-reviewed, indexed journals*

There is high prevalence of predatory journals all over the world. Predatory journal sites accept articles from authors at outrageous fees for publication, without providing peer-review and editing services and neither following academic standard of publishing. Most predatory journals are for profit making. Hence, articles sent to them are quickly published and are usually prone to errors. In these journals, there is usually absence of standard website while those with websites may not have information about the editorial board on their webpages and their peer-review process are not usually explicitly stated. Researchers and academic communities must refrain from publishing in these journals in order to maintain the credibility and integrity of their research output.

Peer-reviewed journals (or scholarly publications) are journals that subject scholarly article of an author to review, scrutiny and editing by other experts in the same field so as to ensure the quality of academic research output. Peer review is the evaluation of articles in order to publish for community of scholars (Lasker, 2018). The process assists in assessing the validity, quality and originality of articles which are submitted for publication and to maintain credibility and integrity of research (University of Queensland, 2023). Peer review process is the “golden standard” for evaluating and validating research publications (Kelley, 2012).

Journal indexes, also known as bibliographic or citation indexes are list of journals organised according to discipline, subjects or types of publications. Before indexing an article, scrutiny and assessment are carried out to ensure that such article meets up with the publishing standard. Factors to be considered are scope of the journal, registration of

International Standard Serial Number, Digital Object Identifiers, information about its peer-review process and its editorial board and schedule of article publication (Singh, 2022). According to the University of Texas (2022), reputable open access journals can be identified by the following: their impact factor as officially reported in the Journal Citation Reports Database (JCRD). Reputable and peer-reviewed open access journals are mostly indexed with reputable indexing databases like SCOPUS, Web of Science, Google Scholar, JSTOR, EBSCO, Directory of Open Access Journals (DOAJ), PubMed, MEDLINE, ProQuest, Ulrich’s International Periodical Directory, Hinari, SCImago, ProQuest, Chemical Abstracts Services (CAS), PubMed Central, Elsevier, Index Copernicus, Open J Gate, Arts and Humanities Citation Index (AHSI), SciELO, Crossref, BIOSIS Previews, CiteSeerX and China National Knowledge Infrastructure (CNKI) among others (Balhara, 2012). It is posited that publishing in peer-reviewed, indexed open access journals increases the chances of visibility of research outputs.

*ii. Self-archiving in institutional repositories (IRs)*

An institutional repository (IR) is a digital platform that serves as a centralised online repository for the intellectual output of an institution, such as university and research institutes. Institutional repositories provide a means to collect, preserve and disseminate scholarly and creative works produced by faculty, researchers, students and staff (Ashikuzzaman, 2018). Similarly, Institutional repository is a digital archive of intellectual outputs of the staff, students and researchers of an institution which is accessible to users within and outside the institution with open, scholarly, and interoperable contents (Crow, 2002). IRs focuses on providing

open access to scholarly communication of members of a particular academic community, thus increasing visibility and impact. It also serve as a platform for preserving the intellectual output of the academic community and thus, showcases excellence.

Contents of IRs are peer-reviewed information in the form of theses and dissertations, conference papers and presentations, books and chapter contribution, research data and datasets, multimedia materials, institutional publications (convocation lectures, inaugural lectures, annual reports, bulletins, newsletter, etc.), students' projects and artworks, technical reports and working papers and the university open educational resources. Several authors like Jain (2018); Oguche (2018) noted that IR is of immense benefits to institutions, authors, students, users, librarians and the society at large. Depositing research content in institutional repositories assist in enhancing the visibility of research output of an individual author and enhances the web visibility of the host institution.

Adeyemo and jamogha (2021) described IR as a catalyst for visibility of research outputs. Buttressing this, authors like Tmava and Alemneh (2013), Ale Ebrahim (2016); Chukwueke (2020); Uba and Okonkwo (2021) reported that online repositories are platforms that can boost and improve the visibility of research outputs.

*iii. Linking research findings with open researcher and contributor identifier (ORCID-ID)*

One of the emerging trends in enhancing global visibility of researcher's scholarly output is linking research outputs with one's ORCID-ID unique during scholarly communication process. ORCID which stands for Open Researcher and Contributor ID is an international, multidisciplinary, open, non-proprietary

and non-profit organisation created by the research community for the benefits of all stakeholders by providing a unique digital identifier that distinguished an author or contributors from other researcher and provides a record that support automatic link among all professional activities an individual carries out (<https://orcid.org/>).

The use of ORCID-ID is gradually becoming a popular phenomenon as top-ranked universities across the globe are advocating its use by researchers. For instance, University of Alberta (2022); University of Winsconsin-Madison (2023); University of Leeds (2023). According to the University of Leeds (2023), ORCID improves auto-claiming of publications for researchers. University of Alberta (2022) noted that ORCID consolidates publications and ensure proper attribution, this is because ORCID distinguishes an author's work from that of other researchers even if they have similar names. According to University of Alberta, ORCID enhances research visibility by assisting in solving a number of challenges such as: ambiguity, credit and attribution, getting found and counted, administrative burdens, managing privacy and identity and portability. Ohio University (2023) noted that ORCID-ID digitally consolidates one's research into a single, persistent, digital location, thus enhancing and increasing research visibility. Similarly, University of Winsconsin-Madison (2023) averred that ORCID-ID assists researchers to set their visibility to the world so as to increase their discoverability.

Tripathy et al. (2017) highlighted the use of ORCID-ID for visibility and discoverability of research outputs. To get an ORCID-ID, researcher needs to access the ORCID website and sign up and within few minutes, supplying necessary information about one's personal profile, institution and affiliation, the ID can be successfully generated online. All who participates in research, scholarship and

innovation are uniquely identified and connected to their contributions and affiliations. With a click away on a researcher's ORCID-ID, it automatically links a researcher to all his/her publications, thus enhancing the visibility of her research outputs.

*iv. Social networking sites*

Sharing scholarly publications on social media sites like Facebooks, skype, instagram, linkedIn and other social media platforms can enhance the visibility of research outputs. Recently, several scholars are sharing their work on their facebook, twitter, instagram page globally. No doubt, awareness and visibility is enhanced. According to Minteer (2022), social networking sites are becoming more significant and gaining popularity for enhancing visibility of research output. Facebook, Twitter, Instagram and LinkedIn are frequently used by researchers. By using hashtag for the content uploaded and setting it at visible to the globe, it enhances the visibility of such research.

Furthermore, World Health Organisation (2014) noted that recently, researchers are making use of social networking tools to disseminate the results of their findings. Tripathy et al. (2017) listed personal blogs, social media tools like twitter, facebook, academia, linkedIn among others as ways of enhancing the visibility and dissemination of research findings. It is not surprising to see several researchers providing links to their scholarly publications on their social media handles.

*v. Membership of academic research community*

The presence of researchers in academic community of scholars like ResearchGate, Academia, Google Scholar, Social Science Research Network (SSRN) and Web of Science enhances the visibility of their research output. In time past,

research process ends at dissemination of research findings. However, most of the findings of such research may not reach appropriate destination where policymakers can implement. Identifying with a member of research community will enable scholarly communication to be seen by those within the research community with same research area (or interest), thus creating more citation chances and impact. Therefore, researchers must strive to ensure that beyond publishing, their scholarly output gain global visibility so that the society can be positively impacted.

**Conclusion**

The beauty of any research is to find its way to the public and contribute meaningfully to societal goals and development through the implementation of its findings. This can be achieved only when the findings (or output) are visible to the global community, as the gateway to research impact is visibility. This article critically examined how global visibility of research outputs and scholarly communication among academics in Nigerian universities can be enhanced. The study x-rayed the state of visibility of scholarly communication among university academics, and spelt out ways by which this can be improved upon by developing a framework.

It is recommended that future studies in related area can be empirical in nature so as to test and validate the conceptual framework developed for the study. Furthermore, more collaboration are encouraged among academics to enhance visibility of their research output.

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