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Evaluation of Electronic Scholarly Journals of Al-Neelain University in Sudan According to the Scopus Database Criteria

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***Abstract* :**The main purpose of this study is to evaluate the online electronic scholarly journals of Al-Neelain University in Sudan according to the Scopus database criteria, with a view to investigating to what extent these journals meet the Scopus database criteria. The study adopted the descriptive approach and case study method. The study population consisted of nine online scholarly journals all of which constituted the study sample. Data were collected by reviewing all online scholarly journals of the University. Data were then statistically analyzed using simple statistical tools and presented in tables. The findings indicated that all of Al-Neelain University online scholarly journals are compatible with Scopus criteria by 56.2%, and confirmed that the missing criteria included absence of publication ethics statement and lack of diversity in geographical distribution of editors in all journals. The study also revealed that 75% of the studied journals lack diversity in geographical distribution of authors and delays in the publication schedule, and that these journals are not available through quality websites. The study recommended the use of Scopus criteria for the development and improvement of Al-Neelain University online scholarly journals.

Keywords: Al-Neelain University Scholarly Journals, Online Scholarly Journals, Scopus Criteria, Electronic journals, Journal Evaluation Criteria.

Introduction

All universities are interested in the publication of scholarly journals for serving scientific research, as this is one of their basic functions. Johnson, Watkinson, and Mabe (2018) stressed

the fact that journals constitute a very essential component of the scholarly communication process and are an integral part of scientific research. With the advent of the internet, scientific journals in universities and other academic institutions are published and are accessible in an electronic form. Online scholarly journals are currently one of the most preferred forms of scholarly communication by researchers, a fact that has been indicated by many researchers (Moghaddam, 2008; Herring, 2002; Borrego, Anglada, Barrios, and Comellas, 2007). Ornelas, Arroyo and Escudero (2005) pointed out that:

> "The lack of methodological knowledge for the evaluation of electronic academic journals on the Internet has permitted the appearance of a great number of publications that neither adhere to traditional standards nor include quality criteria" (p.139).

The online scholarly journals published by Al Neelain University in Sudan need to be evaluated against international journal evaluation criteria with a view to determining their degree of quality. Consequently, this study aims to investigate and evaluate these journals according to the Scopus database criteria. Scopus criteria have been selected for evaluation because they have universal acceptance and recognition. The importance of this study is that it is an attempt to fill the gap in this respect, i.e. to highlight the strengths and weaknesses in the online scholarly journals of Al Neelain University. This will help the Editorial Boards of these journals, and other journals as well, to develop and improve the quality of their journals.

Statement of the Problem

The University of Al-Neelain in Sudan publishes 12 scholarly journals in the range of humanities and sciences disciplines out of which there are 3 print journals and 9 online open access electronic journals available on the university's website. These online journals need to be evaluated as to whether they are eligible for inclusion in the Scopus database as a means of measuring their quality. This paper attempts to evaluate the electronic journals of Al-Neelain University according to the Scopus database criteria to determine to what extent they meet the requirements of inclusion into the Scopus database. In so doing the paper attempts to answer the following research question:

To what extent do the online scholarly journals of Al-Neelain University in Sudan meet the criteria of inclusion of journals into the Scopus database?

Objectives

This study has the following objectives:

1. To highlight the required criteria for scholarly journals to be included in the Scopus database
2. To investigate the current status of online scholarly journals at Al-Neelain University
3. To evaluate the online scholarly journals of Al-Neelain University as to whether they are eligible to be included in the Scopus database.

Literature review

The following literature review consists of two parts. The first part deals with

selected research papers from a variety of studies evaluating electronic journals. The second part, on the other hand, presents some examples of evaluation criteria for electronic journals with a focus on the Scopus Database Evaluation Criteria.

Khalifa(2017) presented a study on the evaluation of six electronic Arab journals in library and information science. The results of his study proved that none of the six journals is qualified to be included in the Web of Science or Scopus databases, and that only one journal is qualified to be added to the Directory of Open Access Journals (DOAJ). The literature shows that there was some growth of Iranian Journals in Scopus Database during 2000-2012. The number of Iranian indexed journals in Scopus database increased from eight to 113 titles in just 12 years (2000-2012). However, this unprecedented growth is believed to have happened due to changes in the editorial policy of Scopus database rather than to positive developments of scholarly writing in Iran (Riahi, Sohbatiha, Fariba and Zare, 2015). Taskin, Doğan, Akça, Şencan and Akbulut (2015) reviewed 203 of the journals evaluated according to the Scopus criteria and indexed in the Scopus database, in order to determine whether they matched the Scopus indexing criteria. They found that only 13 of these journals passed the minimum technical criteria for journals to be indexed in Scopus.

Bakhit (2015) investigated how Sudanese scholarly journals on the Internet were evaluated, based on a checklist, and revealed that most of these journals were not able to provide some of the essential requirements such as the internal search engine, regularity information, availability of back issues, and date of last journal website update. Vishwakarma and Mukherjee (2014) developed 30 criteria based on the criteria of Scopus, Scientific Electronic Library Online (SciELO), Library and Information Science Abstracts (LISA) and Library, Information Science and Technology Abstracts (LISTA) to evaluate the journals of library and information science of South Asian Association of Regional Cooperation (SAARC) Countries. The main result of this study was that none of the journals of this region was indexed in the Web of Science (WOS) or SCOPUS. Some other studies dealt with different aspects of journal evaluation; For instance, Hosseini, Ghaeb, and Baradar (2012) discussed evaluation criteria for electronic scholarly journals indexed in scholarly databases from the readers' perspective. On the other hand, Blas, Rele, and Kennedy (2019) developed an evaluation tool to be used by librarians in order to enable scholars to evaluate the credibility of publication platforms including electronic scholarly journals.

Electronic journal evaluation criteria

In Web of Science, many factors are taken into account when evaluating journals for coverage ranging from the qualitative factors to the quantitative ones. These include the following (Testa, 2018):

- Basic publishing standards include- Peer Review Acknowledgements -Ethical Publishing, Publishing Format,

Timeliness, International Editorial Conventions, Full text English,
- Editorial Content,
- International Focus, and
- Citation Analysis.

At the Arab World level, the Arab Impact Factor (AIF) was established in 2015 under the auspices of the Association of Arab Universities (AARU). The following nine criteria have been developed for selecting Arab journals in this project (Arab impact factor, 2016):

- The journal should have an (ISSN) for the print version and another (ISSN) for the electronic one.
- The journal should have a website that contains all the information about it.
- The editorial board should constitute competent professors.
- Research should be geographically distributed.
- The journal's website should contain publishing rules, publishing ethics, and intellectual property rights.
- Adherence to the publication timetable of the journal issues.
- Adherence to the rules of appointing members of the editorial board.
- Attention to linguistic accuracy
- The journal should be issued regularly. (AIF, 2014).

Scopus criteria for journals selection

Scopus is Elsevier's abstract and citation database launched in 2004. It is created to facilitate the access of researchers and general users to worldwide quality peer-reviewed academic publications in all Sciences (Rew, 2015). Elsevier outlines a number of minimum criteria required of a journal to be eligible for being reviewed in Scopus database. These criteria include:

- Should be a peer-reviewed journal with a clear peer review process.
- Regular publication of the journal with a valid International Standard Serial Number (ISSN).
- Availability of content in Roman script and abstracts and titles should be in English.
- Provision of statements on publication ethics and malpractice.

The evaluation process is done by the independent Scopus Content Selection and Advisory Board (CSAB). According to Sack (2017), The CSAB was established in 2005 and set up in 2009 an International group of 15 independent international scholars and journal editors representing all major fields of knowledge and geographical regions of the world. Table 1 depicts the set of criteria used by CSAB to evaluate journals for inclusion into the Scopus database. Most of the criteria of journal evaluation are similar in many aspects (i.e. peer review, international focus, publishing ethics). Some are more detailed such as the Scopus and Web of Science (WOS) criteria. Most journals try to pass these criteria in order to be covered in global databases such as Scopus and WOS to gain global recognition and access to the largest audience of researchers.

Category	Criteria
Journal Policy	Convincing editorial policy. Type of peer review. Diversity in geographical distribution of editors. Diversity in geographical distribution of authors.
Content	Academic contribution to the field. Clarity of abstracts. Quality of and conformity to the stated aims and scope of the journal. Readability of articles.
Journal Standing	Citings of journal articles in Scopus. Editor standing.
Publishing Regularity	No delays or interruptions in the publication schedule.
Online Availability	Full journal content available online. English language journal home page available. Quality of journal home page.

Table 1: **Category** and criteria for evaluating journals in Scopus Database
Source: Elsevier Content Policy and Selection (2019).

Methodology

This study employed the descriptive approach and the case study method to describe and evaluate the scholarly electronic journals of Al Neelain University in Sudan. The study population consisted of nine online scholarly journals all of which constituted the study sample. Data was collected by reviewing all online scholarly journals of the University. Data was then statistically analyzed using simple statistical tools and presented in tables. The sample journals were evaluated according to Scopus database criteria in two stages: In the first stage the journals were evaluated according to the Scopus minimum criteria (6 criteria), whereas in the second stage they were evaluated according to the Scopus basic criteria (12 criteria). The scores of the studied journals were then calculated from all 18 criteria. Data on the journals were collected from the website of Al Neelain University during the period from December 2018 to January 2019.

Results and Discussion

Table 2: Studied Scholarly E-journals of Al- Neelain

Title of journal	Frequency	First Issue	No. of issues	No. of Articles
Nile Basin Studies Journal	Biannual	1999	21	**281**
Adab Alneelain Journals	Quarterly	2009	11	**153**
Neelain Medical journal	Quarterly	2011	20	188
20	Annual	2012	7	34
Laborat ory Medicine journal				
Journal of Graduate Studies	Monthly	2014	46	**803**
Sudanese Journal of Agricultural Technology and Fish Sciences	Biannual	2016	2	**8**
Alneelain journal of geosciences	Biannual	2017	3	**12**
Journal of the Faculty of Commerce	Biannual	2017	2	**12**
Al Neelain Journal of Science and Technology	Quarterly	2017	1	16
Total			225	**15**17

The electronic journals of Al-Neelain University are developing numerically and currently there are nine journals, whereas in 2014 there were only four journals. This positive development enhances the university's ranking status on the Internet. However, this should be in accordance with the policies and standards of quality. It is also noted that the journals of Al-Neelain University are relatively newly established journals; the first Journal started publishing in 1999, six years after the University's inauguration in 1993. This may indicate that the University did not give scientific research enough priority during its first years.

Table 3: Evaluation of the studied journals according to Scc 20 ım criteria

Journals Criteria	Peer-reviewed content	Registered with the ISSN International Centre	English language titles	English abstract	Have references in Roman script	Publication ethics statement
Nile Basin Studies Journal	√	×	×	√	√	×
Adab Al-Neelain Journal	√	√	×	√	√	×
Neelain medical journal	√	×	√	√	√	×
Laboratory medicine journal	√	×	√	√	√	×
Journal of Graduate	√	×	×	√	√	×

Studies						
Sudanese Journal For Agricultural Technology and Fish Science	√	×	√	√	√	×
Al-Neelain journal of geosciences	√	×	√	√	√	×
Journal of the Faculty of Commerce	√	×	×	√	√	×
Al Neelain Journal of Science and Technology	√	×	√	√	√	×

Table 3 shows that none of the journals of Al-Neelain University meets all of the minimum criteria of Scopus. The Scopus criteria stipulate that ISSN should be registered with the ISSN International Center. It has been shown that one journal is registered with this center, which is Adab Al-Neelain Journal (Majallat Adab Al-Neelain). The table also shows that there are six journals with (ISSN) but not registered with the ISSN International Center. There are also two journals that do not have (ISSN) these are Medical laboratories Journal and the Journal of Agricultural Sciences.

Table 4: Evaluation of the studied journals according to Scopus main Criteria

Category	Criteria	Nile Basin Studies Journal	Adab Al-Neelain Journals	Neelain medical journal	Laboratory medicine journal	Journal of Graduate Studies	S. J. of Agricultural Technology ..	Al-Neelain journal of geosciences	Journal of the Faculty of Commerce	Journal of Science and Technology
Journal Policy	Convincing editorial policy	×	√	√	×	×	×	√	×	√
	Type of peer review	×	×	×	×	×	×	×	×	×
	Diversity in geographical distribution of editors	×	×	×	×	×		×	×	×
	Diversity in geographical distribution of authors	√	√	×	×	√	×	×	×	×
Content	Academic contribution to the field	√	√	√	√	√	√	√	√	√
	Clarity of abstracts	√	√	√	√	√	√	√	√	√
	Quality of and conformity to the stated aims and scope of the journal	×	√	√	√	√	√	√	√	√
	Readability of articles	√	√	√	√	√	×	√	√	√
Publishing Regularity	No delays or interruptions in the publication schedule	√	√	√	×	√	×	×	×	×
	Full journal	√	√	√		√	×	√	√	√

					√					
	content available online									
	English language	√	×	√	√	×	×	√	×	√
	journal home page available									
Online Availability	Quality of journal home page	×	×	×	×	×	×	×	×	×

Table 4 shows that 50% of the studied journals are irregular in their issues and do not have a specific timetable for their issues. Regularity of publication of journal issues is a very important indicator in a large number of criteria. Regularity makes it easier for researchers to systematically follow up on new topics in their fields. All the studied journals have their full content of research articles on the Internet. The table also shows that most of the studied journals do not provide enough information about their Editorial Boards and editorial policies. There is a defect in the availability of Al-Neelain University Journals through the University website; the journals are available through two interfaces. The first one is the webpage titled *University Publications* where all journals of the University are there but this webpage is static and does not show all issues. The second interface is the University digital repository where all journal issues are shown. This duplication of journal interfaces might cause some access problems.

General evaluation of the studied journals according to Scopus Criteria

Table 5: Total Score of the studied Journals by Scopus criteria

Studied journals	Scores	Percentage
Nile Basin Studies Journal	11	61.1%
Adab Al-Neelain Journal	12	66.7%
Neelain medical journal	12	66.7%
Laboratory medicine journal	10	55.5%
Journal of Graduate Studies	10	55.5%
Sudanese Journal For Agricultural Technology and Fish Science	8	44.4%
Al-Neelain journal of geosciences	11	61.1%
Journal of the Faculty of Commerce	8	44.4%
Al Neelain Journal of Science and Technology	9	50%
Total	91	56.2%

Table 5 shows the total scores obtained by the studied journals after applying the 18 minimum and main Scopus criteria to the Al-Neelain journals as shown in Tables 2 and 3 above respectively; each journal's attained Minimum Scopus criteria is added to its attained Main Scopus criteria in order to get the journal's score. The score of each journal is then divided by 18 and multiplied by 100 to get the percentage of the score of a given journal out of the 18 Minimum and Main criteria. Finally, the scores and percentages of all journals are added to arrive at the total score and percentage of all studied journals, which are 91 and 56.2 % respectively as shown in table 4.

Conclusions and recommendations

This study aimed to evaluate the electronic scholarly journals of Al-Neelain University in light of Scopus database criteria. Most of these criteria are important and can be applied with little effort by the Sudanese and Arabic journals. However, some of these criteria are difficult to implement since these criteria - such as the journal standing (reputation) criterion – require that the journal be indexed in a database and the number of citations to the

journals' articles be easily calculated, which is not the case for a number of Al-Neelain journals.

The main findings of the study are as follows:

- Al-Neelain University journals are 56.2 % compatible with Scopus criteria.
- The most popular Scopus criteria available in the studied journals are: availability of full issues, peer reviewed content, quality of and conformity to the stated aims and scope of the journal, English language abstracts, and references in Roman script.
- The Scopus required criteria which are not available in all studied journals are: (ISSN) as registered with the ISSN International Centre - where there is only one journal with a registered ISSN-, type of peer review, diversity in geographical distribution of editors, no publication ethics statements, and quality of journal home page.

Based on the above findings, this study recommends that the University administration and the Editorial Boards of Al-Neelain University journals should work on developing their journals through adherence to international journal quality standards and criteria such as the Scopus criteria.

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