

# Publication Indicators under Web of Science, SCOPUS Databases at Northern Border University: 2008-2020

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## Abstract

The study aimed to analyze the reality of the scientific publishing of the faculty members of the Northern Border University, in both the Web of Science database and the SCOPUS database, with the analysis of publishing indicators and trends for the period between 2008-2020, and the researcher's keenness to apply the bibliometric study research methodology to obtain an account Full and detailed publications indicators under the two databases, including a full analysis of scientific publishing through objective, temporal, quantitative, authors, languages, open access journals, information forms, the most productive authors, the most published scientific journals, the most scientific bodies involved with the university. The study found results, the most important of which is the existence of a high increase in scientific publishing, starting from 2015, with an increase in publishing in the scientific field compared to other disciplines, and that the vast majority of publishing is in the form of articles, as well as publishing in English for the rest of the languages.

**Keywords:** *Scientific Publishing, Web of Science, Scientific Research, SCOPUS; Northern Border University.*

## 1. Introduction

Northern Border University is looking to define multiple strategic plans for the university, which will achieve support for scientific research at all levels, in addition to achieving community partnerships with many bodies that aim to serve and develop the local community. The field of scientific research support, as well as postgraduate research, and student research.

The plan also includes sponsoring talented students and inventors while registering their patents, in addition to supporting the translation unit, and the statistical analysis unit of the Deanship of Scientific Research with competent specialists that will benefit the university and faculty members, in addition to that the scientific research emanating from the support process is pursued to promote publications in the most important approved journals. And classified internationally and with a high impact factor [1], as this strategy can be summed up by providing a scientific, knowledge product of high quality to serve and participate

effectively in the comprehensive community development process.

## 2. Study Questions

The study seeks to answer the following main question: What are the general indicators of the publications of the Northern Border University within both the Web of Science and the SCOPUS database during the period between 2008-2020?

This question includes determining the quantitative and objective indicators, open access journals, contributing universities, published journals, researchers, languages for publications within each of the two rules of the university during the specified period.

## 3. Study Objectives

The study specifically aims to realize the distinct indicators of the publications of the Northern Border University within both the Web of Science and the University's SCOPUS database during the years 2008-2020?

## 4. Importance of study

The importance of the study stems from the fact that it contributes to enriching the scientific publishing movement of Northern Border University by standing on:

- Knowing the general indicators of scientific publishing in all fields of knowledge.
- Learn about the most important journals and conferences published.
- Realizing the authors 'main indicators, the languages approved for publications, and the contributors, to realize the university's scientific publishing indicators.

This leads to coming out with documented scientific indicators to provide those in charge of knowledge management at the university to take the necessary future decisions to improve scientific publishing and its quality,

and the study also provides a new evaluation to analyze the outputs of the scientific publishing of the Web of Science and the SCOPUS database.

## 5. Methodology

Through the presented study, the researcher was keen to use the bibliometric studies research methodology with the help of bibliometric measurement tools specifically, which focus on quantitative analysis of indicators of recorded knowledge and associated behaviors, which are characterized by a set of mathematical and statistical methods that are used in analyzing data to determine the structural indicators of this product to analyze Temporal and subject indicators, author characteristics, sponsors and languages of publications.

## 6. Study limits

The study deals with the quantitative and objective analysis of scientific papers published by faculty members at the Northern Borders University within the Web of Science and the SCOPUS database, whose coverage includes many scientific fields and disciplines, and the study also covers the time limits for publications for the period between 2008-2020.

## 7. SCOPUS

The SCOPUS databases are issued by the publishing Elsevier, which provides its services on the Internet through annual subscriptions [2], The SCOPUS database is the largest database of abstracts and citations for refereed literature such as scientific journals, books, and conference proceedings. SCOPUS provides a comprehensive view of global scientific research indicators in the fields of science and technology, medicine, social sciences, arts, arts, and human studies, and thus they provide effective means to follow, analyze and view scientific research [3]. SCOPUS also has the largest breadth and extension compared to any other database that adopts artificial intelligence systems in the world, through thousands of scientific journals, books, and millions of papers presented at scientific conferences [4], SCOPUS users can get the largest and most recent content in the world with high quality and multiple specialties, this The content indexed within SCOPUS is received by approximately five thousand publishers from around the world, and the SCOPUS database is updated daily.

## 8. Web of Science

The Web of Science provides a wide service for scientific indicators based on subscriptions on the Internet,

previously managed by Thomson Reuters, and the group of journals within it were called (WOS journals), meaning the journals managed by the Institute for Scientific Information, and since Beginning January 2017 Clarivate Analytics took over all the work of managing the Web of Science system [5], providing comprehensive services in the field of citations and citations searches, as well as providing access to many databases under it, which refer to research sources for specialized scientific research, allowing users to search Deeply in specialized subfields of scholarly and academic research [6].

The Web of Science website consists of the main page that includes many helpful indexes that allow the specialist to search according to one of the elements [7], The Web of Science page consists of the following indexes [8].

- Basic Search, through it allows searching multiple elements including the following: (format, title, author, author groups, editor, publisher name, (Digital object identifier (DOI).
- The Cited Reference Search index, which is one of the most important indexes available in the Web of Science, through it is possible to search for titles of available journals within all the multiple databases within the Web of Science, whether those journals have an impact factor or not, as well as by the title of the journal, Author, General, Volume, Research Title [9].
- Advanced Search index, as this index provides the ability to search for specialized and advanced, for important elements such as: (format, title, author, group of authors, editor, name of the publisher, DOI, publications year, conference, title, contributor, main entity, Helper, street, city, country, postal address, support text, place of search) [10].
- Author search index, which allows direct searches with one or more parts of the author's name.
- The search index is in the Journal Citation Reports (JCR) list, and this index is one of the most important indexes of the Web of Science, through it the journals with the impact factor can be identified, this index includes (12090 journals, also this index includes a comprehensive analysis of each journal, including the Ranking (Quartile).

## 9. Indicators of publication of Northern Border University

The researcher was keen to use the authoritative name Northern Border University, which allowed the researcher to obtain all the correct results of the study, as the results showed that the total forms of information sources from research, studies, conferences work and published and approved books within both the Web of Science and the SCOPUS database of the Northern Border University, for the period The timetable from 2008-2020 has been distributed according to the following:

9.1 Quantitative distribution for the period 2008-2020

Table 1: Publication Distribution

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
WOS	1	5	2	4	14	38	41	73	108	166	208	361	420	1441
SCOPUS	0	3	3	8	24	70	60	89	112	123	145	213	313	1163
Total	1	8	5	12	38	108	101	162	220	289	353	574	733	2604

The results show that the period between 2008 and 2014 witnessed a clear weakness in scientific publishing, while the period from 2015 to 2020 witnessed a remarkable development in the scientific publishing movement of the university, and both figures (1,2) represent the rising phase of the scientific publishing of the members of the Teaching in both the Web of Science and the SCOPUS database, there is a severe weakness of scientific publishing during the years: 2008-2014, as the total published during these years

reached (273), with a rate of 10.5% of the total publications of the university, and there is a steady and rapid increase in scientific publishing during the years: 2015-2020, as the publications during these years reached (2331) research at a rate of 89.5% of the total publications of the university, which reflects the tangible and unlimited efforts to support scientific research policies at Northern Border University.

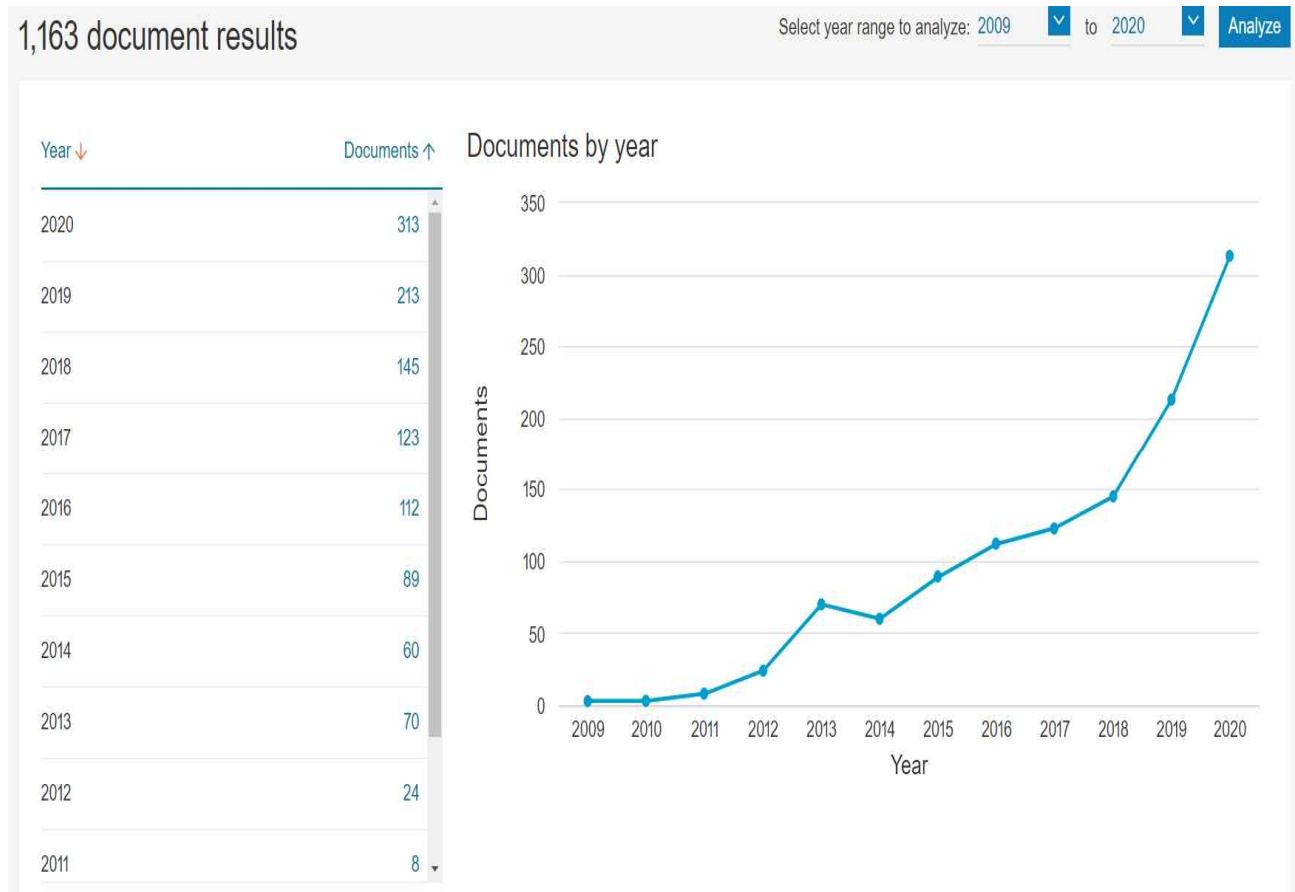


Figure 1: Publication Distribution for SCOPUS

**Figure 2: Publication Distribution for WOS**



**9.2 Distribution of publications according to the main topics**

**Table 2: Topics Publication**

Subject Area	WOS	Subject Area	SCOPUS
Pharmacology Pharmacy	205	Engineering	251
Engineering	171	Physics and Astronomy	228
Chemistry	168	Chemistry	223
Computer Science	150	Materials Science	214
Physics	111	Computer Science	188
Science Technology Other Topics	99	Biochemistry, Genetics and Molecular Biology	175
Materials Science	95	Medicine	141
Mathematics	90	Mathematics	127
Business Economics	73	Pharmacology, Toxicology, and Pharmaceutics	114
Biochemistry Biology	62	Chemical Engineering	61
General Internal Medicine	62	Environmental Science	60
Education	58	Social Sciences	57
Astronomy Astrophysics	40	Agricultural and Biological Sciences	55
Linguistics	29	Economics, Econometrics, and Finance	48
Polymer Science	28	Energy	48
Telecommunications	25	Business, Management, and Accounting	40

### 9.3 Distribute publications according to the open-access format

**Table 3:** Open Access Journals distribution

Open Access Journals	WOS	SCOPUS	Total
2008-2020	534	995	1529

The results showed that researchers rely on publishing within (1529) papers, with a rate of 58.7%. the Open Acces determinant, as the published research reached

### 9.4 Information sources indicators

**Table4:** Information sources distribution

Type of Source	WOS	SCOPUS	Total
Article	1296	1035	2331
Conference Paper	42	63	105
Review	76	46	122
Erratum	0	6	6
Book Chapter	0	5	5
Letter	4	4	8
Note	0	2	2
Book	0	1	1
Undefined	0	1	1
Proceeding Paper	42	0	42
Early Access	30	0	30
Correction	10	0	10
Meeting Abstract	8	0	8
Editorial Material	3	0	3
Poetry	2	0	2

The results showed a tremendous focus of university articles, as the number of published papers reached 2331, by researchers in publishing their research in the form of scientific 89.5%, while all other forms reached 11.5%.

### 9.5 List of enhanced universities contributing to scientific research published to the university

**Table5:** Enhanced Universities distribution

Enhanced University	WOS	SCOPUS	Total
Northern Border University	1417	1063	2706
King Abdulaziz University	111	115	226
Al-Azhar University	68	62	130
Université de Tunis El Manar, Faculté des Sciences de Tunis	82	47	129
Université de Tunis El Manar	82	44	126
Mansoura University	64	61	125

University of Carthage	56	55	111
Assiut University	61	50	111
Suez Canal University	48	51	99
New Valley University	42	44	86

The results showed an uneven distribution of universities and academic institutions contributing with the Northern Border University, as King Abdulaziz University won first place by contributing (226) research, followed by Al-Azhar University in the second place with a total of (130), and then Al-Manar University, Tunisia, in third place, with a total (129) research, then the University of Tunis in fourth place

with a total of (126) research, then Mansoura University in the fifth place with a total of (125) research, then the University of Carthage in the sixth place with a total of (111), then Assiut University in seventh place with a total of (111) research, Then Suez Canal University is ranked the eighth place with a total of (99), South Valley University is ranked the ninth place with a total of (86) research.

## 9.6 List of authors

**Table 6:** List of Authors

Author	WOS	Author	SCOPUS
Imran, M.	56	Fawzy, M.S.	45
Fawzy, M.S.	44	Al-Hossainy, A.F.	41
Al-Hossainy, A.F.	39	Imran, M.	31
El Sayed, A.M.	28	El Sayed, A.M.	28
Nouh, M.I.	27	Nouh, M.I.	25
Amjad, M.W.	25	Eid, M.R.	23
Eid, M.R.	22	Aydi, A.	19
Raja Mag	22	Helal, M.H.	19
Bawadekji A.	19	Salem, M.A.	19
Elsanhoury, W.H.	18	Elsanhoury, W.H.	18
Aydi A.	17	Amjad, M.W.	17

The results show that the highest published researchers are similar in each of the two databases, this indicates that the publishing journals may be similar to some extent.

## 9.7 Quantitative distribution of journals

**Table 7:** List of Journals

Journal	WOS	Journal	SCOPUS
Indo American Journal of Pharmaceutical Sciences	52	Pakistan Journal of Medical And Health Sciences	27
International Journal of Computer science and network security	40	Journal Of Molecular Liquids	19

International Journal of Advanced and Applied Sciences	32	International Journal of Advanced Computer Science And Applications	17
International Journal of Advanced Computer Science And Applications	23	IEEE Access	14
Engineering Technology Applied Science Research	22	Oriental Journal Of Chemistry	13
Pakistan Journal of Medical And Health Sciences	19	Journal of Pure and Applied Microbiology	10
International Journal of Pharmaceutical and Phytopharmacological Research	18	Pakistan Journal Of Medical Sciences	10
Journal of Molecular Liquids	18	Astrophysics	9
Annals of Clinical and Analytical Medicine	17	Journal Of Solution Chemistry	9
International Journal of English Linguistics	16	Genetics And Molecular Research	8

**9.8 Distribution of publications according to languages**

**Table 8:** List of Languages

Language	WOS	SCOPUS
English	1432	1158
Arabic	0	2
French	4	2
Russian	3	0
Croatian	0	1
Bulgarian	1	0
Portuguese	0	1

**10. Results**

The research study reached the following results:

- Scientific research at Northern Border University is one of the main determinants of the overall quality of university education.
- The results showed an increase in scientific publishing in scientific fields than in the humanities, and the field of science acquired a large share of publishing, amounting to 53.5%, while the rest was distributed between engineering fields 14.2%, education 13%, business administration 9%, medicine 9%, computers and information 1.3%.
- The results showed that 105 papers have been published within 32 scientific conferences, out of the total of all published research of 2604 research, and by 4%, which is a small percentage, and the university must encourage

researchers to submit their research to scientific conferences approved within the databases.

- The results showed that 433 papers were published in the English language, at a rate of 99.4%, while 6 papers were published in French, 3 in Russian, and one in Arabic, as well as in Croatian, Bulgarian, and Portuguese.

**11. Recommendations**

After his study, the researcher recommends the following:

- Encouraging the university to associate researchers to present scientific papers in scientific conferences.
- The necessity of the university's commitment to increase the research partnership between its affiliates and other local, regional, and international universities.

- The need to empower the university for graduate and undergraduate students under full scientific supervision by the faculty members.
- Preparing periodic analytical studies for scientific research-supported and published at the university.
- Preparing comprehensive reports and annual books for scientific research for the university.
- Increasing the annual budgets related to following up on the implementation of scientific research projects at the university.
- Work to conduct scientific community partnerships and diversify the bodies supporting the university.
- Attracting academic research chairs for the university.

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