

DEVELOPMENT OF POLISH SCIENTIFIC JOURNALS 1999-2022 AND THE INFLUENCE OF POLISH SCIENTIFIC JOURNAL GRANTS 2018-2022



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Abstract:

The text describes the development of Polish scientific journals using quantitative bibliometric analysis. Indicating two grant programs between 2018 and 2022 as key development factors. The research measures the journal development relying on the ability to pass the admission criteria (quantitative measurement of inclusion in Scopus indexing) and measuring the allocation of journals in Scimago ranking (SJR) quartiles (Best Quartile). Complete SJR datasets for Poland 1999-2022 are being used. A brief historical context of Polish Higher Education reform is provided. The key findings are that Open Access journals outperform Closed Access journals in their development and that the most dynamic period of development correlates with the introduction of journal grants–direct funds allocation.

Keywords: Journal development, grant programme, Polish journals, research in Poland, scientific journals, bibliometric analysis, Scopus, SJR Ranking, Open Access journals, Closed Access journals, quantitative analysis, journal trends, academic publishing, research impact.

1. Introduction to Polish scientific journal grants

In 2018, the Polish Government¹ introduced a grant type explicitly dedicated to the Polish Scientific Journals. The funds were directly available for the editorial teams via the publisher as the grantholder legally representing the journal(s).

¹ Since 5 may 2006 MNiSW – Ministerstwo Nauki i Szkolnictwa Wyższego/Ministry of Science and Higher Education; since 1 January 2021 transformed into MEiN – Ministerstwo Edukacji i Nauki/ Ministry of Education and Science; 1 January divided into two institutions MEN Ministerstwo Edukacji Narodowej/ Ministry of National Education and MNiSW – Ministerstwo Nauki i Szkolnictwa Wyższego/ Ministry of Science and Higher Education.

The grant was called Support for Scientific Journals (Wsparcie dla Czasopism Naukowych), making up to 120 000,00PLN per journal available as *de minimis* support. The grants were executed in the years 2019-2021. This grant programme's goal was to implement projects aimed at improving the level of publishing and editing practices, enabling the entry of Polish scientific journals into international scientific circulation 500 journals awarded (*Informacja w sprawie wyników konkursu ogłoszonego w ramach programu „Wsparcie dla czasopism naukowych”*, 2019). The key requirement for the participants of this grant programme was not to be indexed in Scopus or Web of Science (WoS) citation indexes (Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 20 września 2018 r. w sprawie pomocy *de minimis* w ramach programu „Wsparcie dla czasopism naukowych”, 2018, r. § 4. 1. 1) b)) - as the introduction of Polish scientific journals to Scopus and WoS was the objective of this grant program.

In 2021, the second grant program was launched for scientific journals called *Development of Scientific Journals* (Rozwój Czasopism Naukowych), up to 80 000,00PLN or 120 000,00PLN were made available per journal as *de minimis* support. The possibility to apply for the higher amount of funds was dependent upon 1) being classified below or above 50th CiteScore percentile (Zijlstra & McCullough, 2016) in at least one Scopus ASJC category or 2) being classified below the 50th CiteScore percentile at the same time being granted 100 or more points in Ministerial List of Scientific Journals and Peer-reviewed Materials From International Conferences² or 3) the journal needed to be indexed on one of the following WoS lists: *Science Citation Index Expanded*, *Social Sciences Citation Index* or *Arts & Humanities Citation Index*. The grant execution began in 2022 with the maximal duration of 24 months. The journals indexed in WoS, and a higher Scopus rank were clearly promoted. In the case of this grant program, the key requirement to qualify for the financing was to be included on a Ministerial List of Scientific Journals and Peer-reviewed Materials (relevant for Polish research evaluation), and one of the international databases of scientific journals: Scopus, Science Citation Index Expanded, Social Sciences Citation Index, Arts & Humanities Citation Index, Emerging Sources Citation Index or European Reference Index for the Humanities and

2 <https://www.gov.pl/web/nauka/ujednolicony-wykaz-czasopism-naukowych>

Social Sciences (ERIH+) (Rozporządzenie Ministra Edukacji i Nauki z dnia 3 sierpnia 2021 r. w sprawie programu 'Rozwój czasopism naukowych', 2021, r. § 6. 1) b)). The key goal was to support activities to improve the level of publishing practices and editorial, increasing the journal's impact on the development of science and maintaining the journal in the international scientific circulation in services recognised by the Polish Government. In this second grant program, 565 journals were awarded.³

In the case of both grant programs, there were requirements safeguarding journals' stability of publication, accessibility, ethical and technical standards:

- J was published for at least 2 years (no delays);
- J has adopted and applies the principles of publication ethics by the guidelines of the Committee on Publication Ethics (COPE);
- J is taking into account the dissemination of scientific articles published in the journal in open access mode on the Internet no later than within 6 months from the date of publication of the journal issue, free of charge and without technical restrictions;
- J is taking into account the use of digital identifiers of electronic documents (DOI) and unique identifiers of researchers (ORCID).

Those requirements overlap with some of the "Plan S" directives, inducing the development of Open Access publishing and data interoperability.

In the years 2010-2018 Polish scientific journals could apply in a grant program called Science Dissemination Activities (*Działalność Upowszechniająca Naukę*), where they would need to compete for the funds with all possible institutions and types of research dissemination activities.

2. Historical context

In the years following the fall of communism in Poland (1990-2009) no comprehensive reforms of research in the higher education system were introduced in Poland ([Kwiek, 2016, p.](#)

³ <https://www.gov.pl/web/edukacja-i-nauka/wyniki-konkursu-rozwoj-czasopism-naukowych>

204). After 1989, the Polish higher education system transitioned from elite to being a teaching-oriented, egalitarian system while research and science lost their importance (Korytkowski & Kulczycki, 2019).

Since 1 May 2004, Poland became a member of the European Union. The reform from 2005 adjusted the Polish higher education system to the Bologna Process (Kwiek, 2017, p. 11; Kwiek & Szadkowski, 2020).

In 2009-2011, significant higher education reforms were initiated by the Polish Minister of Science and Higher Education, Barbara Kudrycka. The idea of a Humboldtian university, "The University is a Rule-governed Community of Scholars" (Kwiek, 2017, p. 11; Olsen, 2007, pp. 29-31) with the purpose of democratisation of Polish higher education was dropped, where "The University is an Instrument for Shifting National Political Agendas" (Kwiek, 2017, p. 11; Olsen, 2007, pp. 31-32). Financing science was moved from the state to intermediary institutions and linked with measurable research productivity (Kwiek, 2018, p. 338). A grant system was introduced. However, the financing level for academic science did not change significantly (Kwiek, 2021, p. 37). A transition towards a performance-based system continued (Kulczycki et al., 2017). The reform increased the performance of individual researchers (Korytkowski & Kulczycki, 2019). Still, the performance of Polish journals was not as impressive until the new reform and introduction of journal-oriented grants (financing).

In 2018, a neoliberal reform of Higher education and a definite shift towards performance took place in Poland. The research quality evaluation, journal quality evaluation, and other aspects of higher education have been rearranged. Direct financing was supplied for the Research Excellence Program (*The "Initiative of Excellence – Research University" (IDUB) Programme Is a Key Element of the Act on Higher Education and Science*, n.d.) and the journal grants. According to Polish legal archives, the project of the legal act of the reform was registered in the government system on 19-09-2017⁴ - this legal act in art. 401, par. 6 lays the foundation for the first grant for the journals – this should also be the year one should start to measure the influence of the new policy.

⁴ <https://legislacja.rcl.gov.pl/projekt/12303102>

3. Methodology

Considering the goals of both introduced grant programs, it needs to be concluded that they were intended to 1) induce the inclusion of Polish scientific journals in Scopus and WoS services and 2) increase the metrics relevant to those services.

From this perspective, for this research, two pivotal decisions have been made:

1. The research will use Scopus journal data, obtained from SJR ([Scimago Journal & Country Rank, 2023](#)) providing country-specific publication information alongside bibliometric data. Complete SJR Journal Ranking datasets for Poland across all available years (1999-2022) were utilized.
2. The “Development of Polish Scientific Journals” will be quantitatively defined and measured by two factors: Firstly, inclusion in Scopus, reflecting technical advancement (meeting admission criteria). Secondly, advancement into higher Scimago Ranking Quartiles (best quartile), showing substantial development through increased prestige and citations from journals meeting Scopus criteria.

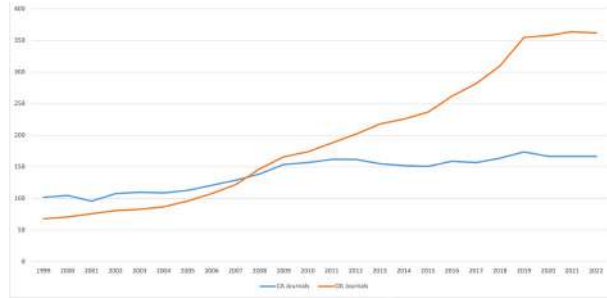
The data was visualised using Scimago Graphica software ([Hassan-Montero et al., 2022](#)) and standard Microsoft Excel graphs.

Because the Scimago data sets can be downloaded only as a complete set or only Open Access journals (OA), a data set consisting of Closed Access journals (CA) has been created by eliminating Open Access journals from the complete data set.

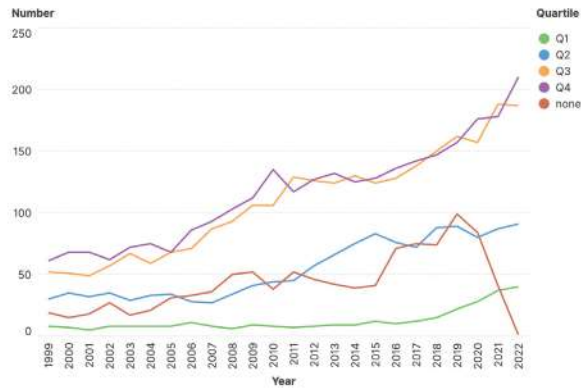
4. Results

The results allow for a comparison of OA and CA journals. A quantitative comparison of Polish OA and CA journals included in Scopus/SJR between 1999-2022.

Total Number of Polish Journals on Scopus CA vs OA

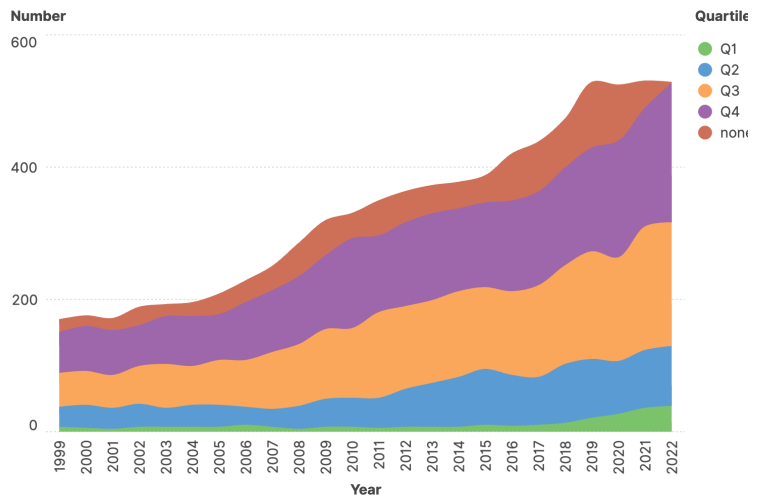


All Polish Journals in SJR Quartiles



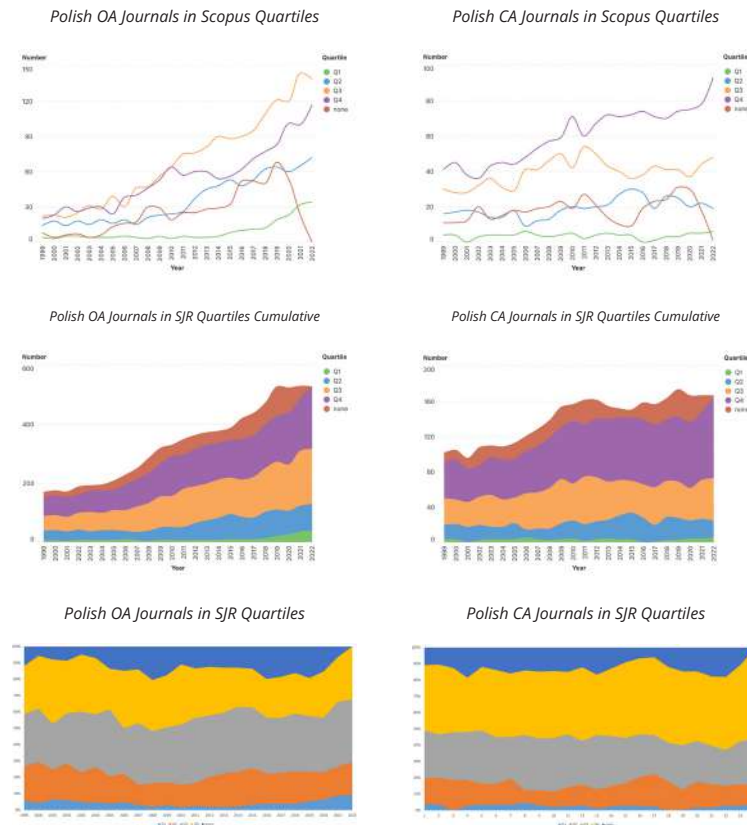
Number of Polish journals in Scimago quartiles 1999-2022. 40 (including 34 OA) journals in Q1 (2022).

All Polish Journals in SJR Quartiles Cumulative



Number of Polish journals in Scimago quartiles 1999-2022 accumulated.

Analysing OA and CA journals separately reveals what makes the difference in the dynamics of journal development.



5. Conclusions

Open Access journals exhibited a more pronounced and consistent upward trend in quartile rankings than Closed Access journals. OA journals drive the development and progress made by Polish scientific journals. In 2008, more Polish OA journals passed the Scopus admission criteria (in total) appearing in Scimago ranking. Since 1999, Polish OA journals had a bigger presence in Scimago Q1, Q2, and Q3 than Polish CA journals. The presence of Polish CA journals in Scopus, and thus in Scimago ranking remains stagnant, with the only significant increase between 2005 and 2008 (when they grew their presence similarly to OA journals) and between 2020 and

2022, increasing their presence in Q4. The presence of Polish OA journals started to grow significantly from 2005 onwards, with a significant increase from 2017 onward. The substantial increase in Polish OA journals inclusion since 2017 correlates with introducing higher education reform in Poland. The introduction of journal grants stimulated the publishers to undertake additional action to be included in indexing services recognised by the Polish Government and to undertake actions enabling the impact of Polish journals on global research, which can be measured through citations, thus advancement in quartiles of Scimago ranking. The results show a correlation between public policy regarding research, journal grants, and scientific journals' development and performance.

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