

Summary

The beginning of the 21st century is associated with significant changes in the scientific publishing market. Its considerable commercialization resulted in a reorientation of the perception of the author and the publisher in their mutual communication. This was due to the ever-advancing globalization of science, accompanied by an ever-increasing number of researchers who have an intensified and often unsatisfied need to extend the size of their own scientific achievements. This results in limited publishing space and the exclusion of many authors who cannot find their place in the competitive scientific environment, operating according to the *publish or perish* culture. Such favourable circumstances gave an opportunity for intensive development of predatory publishing, an alternative channel of the science ecosystem, which meaningfully changed the pattern of circulation of scientific information. This phenomenon is multifaceted, and its origins are caused by the many dysfunctional aspects of the world of science.

Discussion about predatory periodicals and publishers was originally present only on science blogs. Soon it penetrated into the main scientific discourse, becoming the subject of theoretical considerations and empirical research. Initially marginalized and discussed on the occasion of other issues, the subject of the predatory publishing industry quickly gained scientific status, making its way into the mainstream of the literature on the subject. However, a steadily growing number of articles on predatory journals and publishers is available in a variety of specialist journals, resulting in the fragmentation of content relating to predatory publishing forms, located in thematically diverse sources. This makes it very difficult to follow the latest state of the art on predatory publishing. The small number of reviews of the literature and bibliometric studies exacerbate this problem. The deficit diagnosed in the literature necessitates both an in-depth review of the literature and an exhaustive bibliometric analysis.

This dissertation has a theoretical and empirical character. Its main goal was to diagnose and analyze the size, structure and dynamics of changes in scientific literature on predatory publishing published for the years 2011-2020, as well as to present comprehensive bibliometric characterisation of this literature from the point of view of its various attributes. Within the dissertation, the review of literature and bibliometric analysis were applied. Both methods were used in parallel and in a compatible manner, constituting two separately conducted research procedures, allowing non-duplicating research results to be obtained. The material scope of the dissertation has been limited to only predatory journals and predatory publishers, due to the dominance of this issue in the literature on the subject. Because of the volume

limitations of the work and the multidimensionality of the issue of predatory publishing, the topics related to predatory conferences, hijacked periodicals and misleading metrics were only hinted at in the dissertation, without a thorough discussion.

The structure of the work, apart from the introduction and conclusion, contains four main chapters. Each of them has a separate section summarizing the analysed threads within it. The dissertation ends with an extensive bibliography and annexes presenting source materials mentioned in the work, which were not directly presented in the text. Due to the international recognition of the word *predatory*, used to describe unreliable publishing practices in the literature on the subject, it was decided to use it consistently in the Polish-language version *drapieżny*, with full awareness of the controversy it raises in the scientific community.

Before starting the research, the final corpus of scientific publications discussing the issue of the predatory publishing model was created. The articles included in it were collected based on the resources of the Web of Science and Scopus databases as well as the content of the EBSCO Discovery Service for the Jagiellonian University multi-search engine. Subsequently, the articles were subjected to a selection process consisting of several stages, according to the established inclusion and exclusion criteria, which allowed the corpus to finally be reduced to 580 articles. The corpus prepared in this way was, in the first place, a source of data for bibliometric analysis, which was the main research axis of the dissertation. To some extent, and after complementing, it was also used during the study of the literature performed to prepare the theoretical chapters of the dissertation. The conducted literature and bibliometric research made it possible to fill the identified research gap in the scope of an extensive literature review and a comprehensive bibliometric analysis of scientific literature on predatory journals and publications.

Literature research was conducted in order to:

1. present the issue of predatory publishing in a retrospective aspect and present the current knowledge on this phenomenon,
2. organize the terminology and definitions regarding the issue of predatory publishing, identify the causes of the phenomenon and its ethical and legal dimensions,
3. determine the impact of Jeffrey Beall's concept on the perception of the phenomenon of predatory publishing in scientific communication and show the criticism it has received in the scientific community,
4. present the phenomenon of predatory publishing against the background of the development of Polish science,

5. show the hitherto developed ways of diagnosing and counteracting the phenomenon of predatory publishing.

The part of the dissertation concerning the history of the bibliometric method was intended to show its procedures, applications and limitations. It required a separate review of the literature on the subject, narrowed down to works thematically related to theoretical and practical bibliometric issues. It made it possible to show the stages of development of bibliometrics, as well as to expose its well-established position as a research method in many fields and disciplines of science. All literature research was based on a variant of the narrative literature review method, which covers a wide spectrum of topics ordered chronologically and factually. They formed the theoretical basis for bibliometric research.

Selected elements of the structure of scientific literature constituting the final corpus of publications were considered as the subject of bibliometric research. These elements were analysed according to the following criteria: publication authorship parameters, bibliometric parameters evaluating the scientific achievements of distinguished authors, parameters of formal, bibliometric and altmetric features of publications, parameters of publication sources and selected parameters of the thematic scope of publications. Statistical characteristics of the indicated formal and content aspects of the publication of the corpus were made with the help of a bibliometric descriptive analysis, in quantitative and, in part, qualitative terms. The main objective of the bibliometric research was:

1. identifying and analysing the size, structure and dynamics of changes in scientific literature on predatory publishing, published for the years 2011-2020 and included in the final corpus of publications,
2. presentation of exhaustive bibliometric characteristics of this literature from the point of view of its various attributes,
3. supplementing the research gap identified in the literature on the subject in the field of bibliometric research on publications on predatory journals and publishers.

The following detailed research questions were formulated in the dissertation:

1. What is the number of articles included in the final corpus of the publication, what is their chronological distribution, from which databases have they been taken and how are they most often made available on the Internet?
2. Which featured authors of corpus publications are the most productive in terms of the number of published articles on predatory publishing?
3. Which periodicals published the most articles on predatory publishing included in the final corpus?

4. What is the dominant gender of the authors of the featured articles in the corpus? What is the dominant scientific status of the authors of the distinguished articles of the corpus?
5. Which countries are the featured authors of the corpus articles that publish the most papers on predatory publishing from? What is the share of authors of distinguished corpus publications from the countries of the Global North, and what from the countries of the Global South?
6. Which scientific and research units are most often associated with the distinguished authors of articles in the corpus?
7. What share of publications on predatory publishing is the result of the work of research teams, and what is the result of the individual work of a single author? What is the structure of co-authorship in corpus articles in terms of internationalization, number and gender of co-authors?
8. Which authors featured in the corpus publications achieved the highest H-index value in the Web of Science and Scopus databases? What is the citation rate of publications included in the scientific achievements of the authors of the distinguished articles of the corpus according to the Web of Science and Scopus databases?
9. What is the scale of presence of authors of distinguished corpus publications on ORCID, Academia.edu and ResearchGate?
10. What is the preferred publication category among the articles included in the final corpus?
11. What is the scale of occurrence of articles in the final corpus containing elements such as: abstract, keywords, calendar of the publishing cycle, information on financial support for research and an attached bibliography?
12. What is the average number of citations obtained by corpus articles according to their websites and according to the Web of Science and Scopus databases?
13. What is the average value of altmetric indicators obtained by the articles of the corpus according to their websites and according to the Scopus database?
14. Which publishers are the most active in terms of the number of published articles included in the final corpus? What is the share of publishers cooperating with research and development units?
15. What is the dominant business model, thematic scope and frequency of publication of journals publishing articles in the corpus?

16. What is the reputation of journals publishing articles in the final corpus assessed on the basis of declaring the review process, appearing in reference databases and obtaining the impact factor?
17. What is the share of articles in the final corpus dealing with issues related to the terminology of predatory publishing?
18. What methodology was most often used in research on predatory publishing, the results of which were published in articles included in the final corpus?
19. What is the dominant geographic and domain-specific context for research on predatory publishing reported in corpus articles?
20. What is the size of the grid of thematically related articles included in the final corpus?

The conducted bibliometric research made it possible to provide meticulous answers to the posed research questions, thus providing new knowledge about the specificity of the publications included in the corpus. The research also allowed for the identification the scale, structure and susceptibility to changes of the publications that make up the final corpus. As a result, a very interesting portrait of the literature on the predatory publishing market was created, having a high cognitive value and significantly enriching the scientific discourse. Thanks to in-depth literature research, the theoretical part of the dissertation is additionally a kind of compendium of information, which can be treated as a starting point for expanding knowledge about the predatory publishing model and the dysfunctional aspects of modern science correlated with it.

The conducted bibliometric analysis could be considered the first study that analyses the scientific literature on predatory journals and publishers in Polish literature on such a large scale. It may be an introduction to further bibliometric research on scientific literature dealing with the issue of the predatory publishing market, which could be carried out periodically. Due to the intensification of the development of predatory publishing and the rapid growth of scientific publications on it, a regularly supplemented series of bibliometric studies could be an important component of the process of expanding researchers' awareness of the threats caused by the presence of predatory elements of scientific communication. A series of studies of this type would greatly contribute to the methodical shaping of attitudes of responsible and sustainable publishing among members of the scientific community, thus facilitating well-thought-out and accurate decisions while choosing the right periodicals to disseminate the results of their own research.