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PROJECT MANAGEMENT OF PUBLICATION ACTIVITY AT THE MODERN UNIVERSITY

O. A. Fikhtner (a), O. E. Vanyushkina (b), G. V. Lebedeva (c)*

*Corresponding author

- (a) Yaroslav-the-Wise Novgorod State University, ul. B. St. Petersburgskaya, 41, Veliky Novgorod, Russia, Oxana.Fikhtner@novsu.ru
(b) Yaroslav-the-Wise Novgorod State University, ul. B. St. Petersburgskaya, 41, Veliky Novgorod, Russia, oev_novsu@mail.ru
(c) Yaroslav-the-Wise Novgorod State University, ul. B. St. Petersburgskaya, 41, Veliky Novgorod, Russia, Igv-mav@mail.ru

Abstract

The principles and methods of project management of publication activity are considered, the role of scientometrics in research work is determined, the importance of the most important scientometric databases is identified, the modern requirements for the formation and characterization of the author's personal publication career, its role and place in scientific research are examined, the value of information and management competencies of a modern author is determined. The analysis of the main scientometric indicators on three scientometric databases main for the Russian scientist was carried out (RISC, Scopus, Web of Science Core Collection). Based on the analysis of scientometric indicators, the directions of improving the management of publication activity are proposed: the formation of a scientific policy in order to increase the effectiveness of the organization's scientific activity, taking into account modern requirements for the publication activity of a university; development of the university's publication strategy based on an analysis of strategies to increase publication activity and scientific trends; the use of effective scientometric tools to manage the research activities of the university; the formation of information and management skills of a modern author: management of personal knowledge and publication career; active application of the principles, methods and indicators for assessing the publication activity of authors; stimulation of the publication activity of authors and research teams; creating an environment conducive to increasing the number of publications in high-rated journals and increasing the citation of articles of scientists; increasing the visibility of the results of research activities of the university.

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Keywords: Management information skills and competencies of a modern author, publication activity, publication career management, publishing strategy of the university, scientometrics.



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1. Introduction

Today the economic growth of the regions is due to how successfully it is possible to use scientific and technological innovations in various areas of everyday life. The introduction of innovative developments in any industry, field of activity has a close relationship with the development of science and research. One of the key tasks in the development of modern Russian science is the integration of its results into the international scientific community. The management of scientific research and the use of scientometric indicators to assess the effectiveness of scientific activity of modern Russian universities is an important component of the state policy of scientific research management.

An important criterion for assessing the effectiveness of the educational organization, which affects the ranking of the university, its funding from the federal budget, and development prospects, are indicators of publication activity (PA). Today, its development, assessed in quantitative and qualitative indicators, is relevant for any such organization. That is why the issue of managing publishing activity and its development strategies is a key issue for universities seeking to become centers of innovation in their regions.

Management of the organization's publication activity implies the planned implementation of a policy for the formation of a highly professional research corps, the systematic additional development (training) of scientists in order to help them to obtain "transferable skills" in this area. The strategy of managing publication activity should combine multilevel projects, the implementation of which is ultimately designed to increase quantitative and qualitative indicators of the effectiveness of research activities and, more specifically, publication activity.

2. Problem Statement

The main objective of our study is to identify key areas of project activity that allow to implement a strategy for managing publishing activity in a modern Russian university. Analyzing the data on publications of Yaroslav-the-Wise Novgorod State University (NovSU) using three main scientometric databases (RISC, Scopus, Web of Science Core Collection) and relying on the experience of other similar organizations, we will consider the possibilities of solving this issue by launching projects of a managerial nature, including a number of specific measures to improve the scientometric indicators of the university, independent of the intensity of the publication activities of scientists, and implemented by any organization at the initial stage of developing research management strategy.

3. Research Questions

The questions that we have to answer naturally follow from the task.

3.1. University scientometric data update

This area of activity includes a set of measures aimed at improving the scientometric indicators of the organization without actually increasing the number of publications:

- creation and maintenance of the relevant profile of the organization in leading scientometric databases;
- work with profiles of authors;
- organization of work on the inclusion of previously published publications in the RISC;
- systematic work to adjust the data on publications and citations of the organization.

3.2. Events promoting publication activity

These events can be either one-time or recurring, different in their basic characteristics, simple or consisting of modules:

- training seminars, courses, master classes, development of teaching materials for authors of publications by university team members;
- invitation of interested parties to joint activities that promote awareness and, as a result, the formation of individual strategies for the publication activity of individual authors;
- organizational and financial support of individual scientists and teams in activities that contribute to raising the overall level of the university's PA.

We will dwell on these issues in more detail when considering specific examples that served us as material for research.

4. Purpose of the Study

The aim of the study is to determine the modules of project activities, the combination of which can be effective at the initial stage of the strategic development of the organization's PA.

5. Research Methods

When assessing the growth dynamics of PA of the organization in the RISC, Scopus, Web of Science Core Collection, and comparing these systems for data correlation, one of the most important questions for the study is to identify the main reasons for the low indicators of authors' publication activity based on the results of indexing in scientometric databases with an overall fairly high PA level. This question consists of individual tasks, a significant part of which we think is possible to solve by conducting a series of events at the university (Voznesenskaya, Krasnov, Yavorsky, & Chesnokova, 2019).

The study used data from three scientific indexing systems: RISC, Scopus, Web of Science Core Collection. The analysis of the materials obtained allowed identifying a number of patterns and evaluating the first results of the university policy of increasing PA (Moskaleva, Pislyakov, Sterligov, Akoev, & Shabanova, 2018; Logunova, Arefieva, & Ilyina, 2015; Galeev & Galeeva, 2012).

Exploring the main discrepancies in the data for the three scientific citation indices, we consider the possible project solutions applicable for this organization to form an effective PA management strategy.

In the article (Guskov, Kosyakov, & Selivanova, 2017), the five-year experience of leading Russian universities in the development of publication activity is considered. The authors analyze strategies for increasing the publication activity of Project 5-100 participants, their strengths and weaknesses. Five main strategies are distinguished: “norm”, “attracted article”, “attracted author”, “conference” and “RF conference”. Various combinations of these strategies give both positive and negative results. Based on the experience and results of the development strategy for the publication activity of the participants in this project, considering the strategic objectives of the technical, economic, innovative development of the region in which the organization is located, it is possible to develop an individual strategy for managing the publication activity of a modern university.

5.1. Indexing of articles of an organization in Scopus and Web of Science Core Collection international scientometric databases

We use the experience of NovSU to evaluate the work on monitoring and indexing publications of university scientists in Scopus and Web of Science Core Collection international databases (Figure 01).

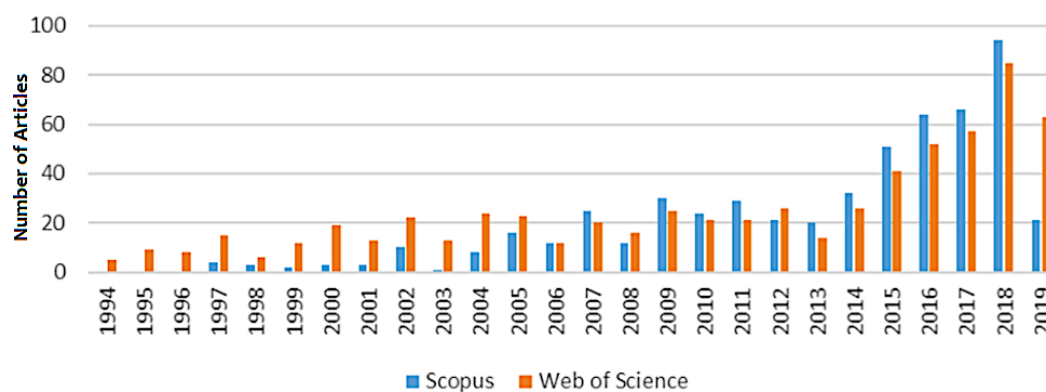


Figure 01. Dynamics of distribution of publications of NovSU in Scopus, Web of Science Core Collection

The results presented in Figure 01 can be obtained by a search query, the basis of which is the profile of the organization. But due to the fact that the profile was created relatively recently on the Web of Science (WoS) platform (at the beginning of 2019), and the work on correcting it is now in the active stage, we can confidently say that the data received do not display, in general, the entire array of publications by NovSU authors. Publications affiliated with the “Novgorod State Univ”, sometimes with the “Yaroslav Univ”, may not join this array (automatically). The problem is that this variant of designating an organization for an automatic information recognition system means variability, since it is suitable for more than one organization.

Note that this problem is characteristic not only for foreign recognition systems, but also for the Russian Index of Science Citation. So, the frequently encountered variant of designating NovSU by operators who do not use automatic recognition of the organization does not allow the system to correlate the proposed option with the organization profile (Figure 02). The designation of the organization under number 1 in Figure 02 is not taken into account in the RISC as a publication of NovSU and is not reflected in the official profile of the organization. As a result, the system recognizes only part of the

name (Novgorod State University) and assigns the article to the University of Nizhny Novgorod due to the similarity of the names. Note that in the article itself, the authors often indicate the true affiliation of NovSU and Veliky Novgorod.

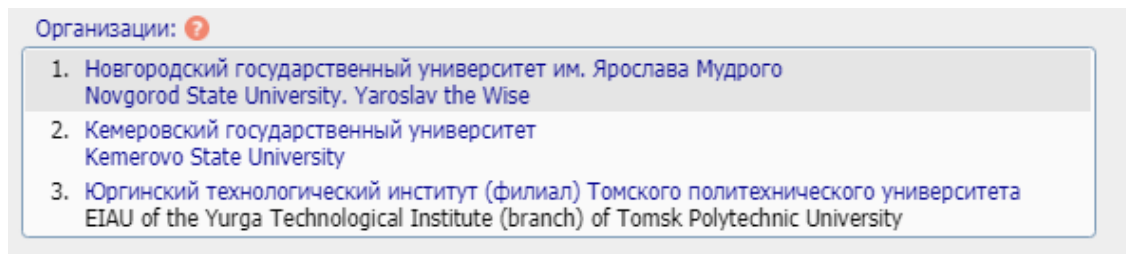


Figure 02. Organization spelling in the RISC

There are situations when the incomplete name of the organization, containing the name “Yaroslav” or even “Yaroslav Univ”, becomes the mechanism for launching regular system errors. In the systems one can find articles of NovSU assigned to the organization “Yaroslav Mudryi National Law University” (Kharkiv, Ukraine), if the author did not indicate the city and country. Authors of articles must adhere to the unified official name of the organization. And the articles “lost” in this way have to be searched manually, which leads to the need to use additional university resources, as well as the inability to timely receive reliable information about the real state of affairs and makes it necessary to send requests (note that the correction of affiliation is possible only with sufficient evidence, for example, primary source (PDF version of an article from the journal) contains information about the organization and the city).

Figure 03 shows the dynamics of publications by NovSU authors in editions indexed in Scopus and WoS.

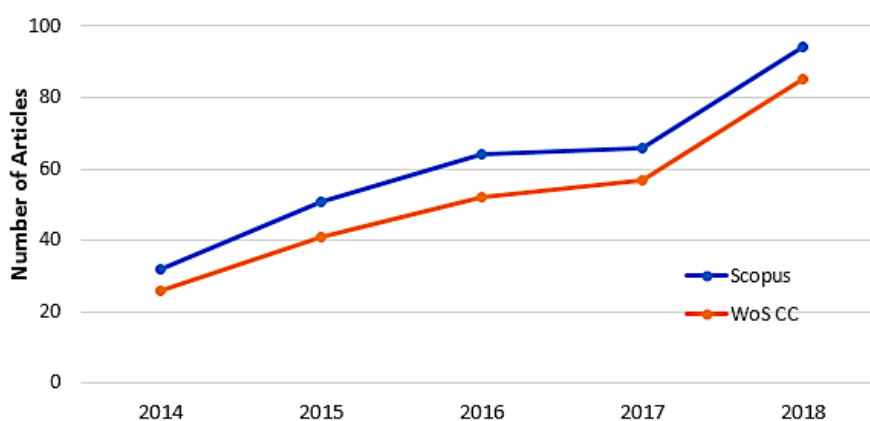


Figure 03. Dynamics of NovSU PA indicators in Scopus and Web of Science Core Collection

We see that the increase in the number of indexed articles in Scopus and WoS proceeds progressively with approximately the same growth rate, which suggests that authors’ publication initiative is developing in approximately the same way with respect to both databases: the researches of NovSU authors are in demand by international editions and of some scientific interest in world science. In

addition, this fact suggests that both foreign systems of scientific citation are equally accessible to the authors of NovSU. A noticeable increase in publication activity in 2018 and the expected increase in the number of publications indexed in the WoS in 2019 clearly demonstrate the effectiveness of activities undertaken by the university's leadership as part of a strategy aimed at increasing the university's publication activity. The policy of developing publication activity at NovSU has been actively developed since 2018 and almost immediately ensured an increase in the number of indexed articles. The measures taken in 2019 will also contribute to the quantitative growth of publications in indexed editions.

5.2. Comparison of three databases by the number of publications and citations

The analysis of the publication activity data for 2014-2018 and the comparison of the data for 6 months of 2019 presented in the most important scientific citation systems for the Russian scientist showed that already at the initial stage of the formation of the development strategy of the publication activity, the complex of measures taken showed its effectiveness (Table 01).

Table 01. Comparative characteristics of the number of publications of NovSU in leading scientific citation systems in 2014-2019

Scientometric Databases	2014	2015	2016	2017	2018	2019 (on 07/08/2019)	Total Databases (on 07/08/2019)
eLibrary	717	911	1049	1197	1367	201	10175
RISC*	635	797	839	982	1212	143	8106
Scopus according to RISC	38	46	46	47	44	4	634
WoS CC according to RISC	25	33	36	40	32	2	448
Scopus	32	51	64	66	94	21	551
WoS CC	26	41	52	57	85	63	648

*RISC and RSCI should be distinguished. The Russian Science Citation Index was launched in December 2015 on Web of Science platform. It is part of the RISC, making up its core.

Thus, the organization of a “pilot” international conference, which resulted in the publication of articles in a special issue of the journal indexed by Scopus, yielded the following results: 39 articles were published by scientists from NovSU, including authors with a low level of publication activity. This is explained not only by the fact of organizing this scientific event, but also by a number of additional incentive measures that contribute to an increase in the number of publications: ensuring high-quality translation of articles into English, information and methodological support, organizing the preparation of the collection layout, help from colleagues from other organizations with experience of working with international scientific publishing houses. As a result of the work, new research teams emerged that continued to work together after the event. In 2019, the number of interested authors increased significantly, which made it possible to organize two similar conferences on technical sciences, expanding the geography of participants and increasing the number of groups of authors who prepared materials of their research for collections of these conferences. The collection of 2018 was highly appreciated not only in the Scopus system, but was also indexed in 2019 in the Web of Science Core Collection, which added confidence in the success of measures undertaken by NovSU to develop the

university's publication activity. Thus, only one successful scientific event contributed to the increase in the number of publications in the Scopus and Web of Science Core Collection databases (by almost a third), which allows us to recognize the first stage of the implementation of the strategy for the development of publication activity at NovSU as satisfactory and lay the foundation for further development of the university in this direction. Analyzing the indicators of the leading international scientific citation systems for 2014–2018 and comparing them with the data for the first half of 2019, we observe a noticeable increase in publications indexed in the Web of Science, which is explained by the second successful international conference with the subsequent publication of materials in one of the international rating editions. Material incentives for authors of articles indexed in the current period also influenced the increase in the total number of articles in 2019. For six months of 2019, the number of publications indexed in the Web of Science has already amounted to 63 articles, which exceeds the average annual figures of 2014-2017 and amounts to 74.12% of the annual indicator of 2018. The data presented by articles indexed in the Scopus do not show similar growth in the first half of 2019, but it should be remembered that the main results of measures to increase the level of PA planned for 2019 have not yet yielded results.

The RISC also keeps records of Scopus and WoS publications. Only publications that are classified as journals by the RISC are considered there. Most foreign publications with ISSN and impact factor of authoritative bibliometric systems (SCImago Journal Rank and Journal Citation Reports) are classified as books and are not taken into account when calculating indicators (Figure 04).

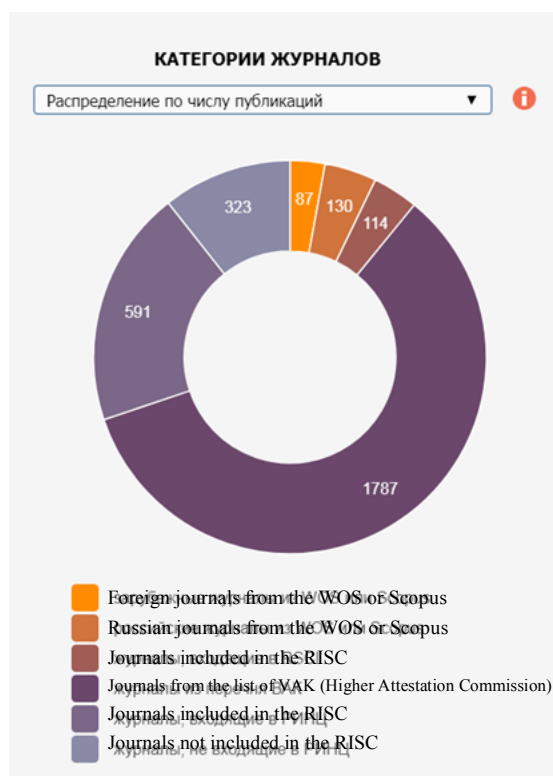


Figure 04. Distribution of publications by category of journals (according to RISC) on 07/08/2019

This is the main reason for the discrepancy of Scopus indicators according to the RISC data and those of the WoS CC according to the RISC data from the indicators of these databases themselves. As a result of these discrepancies, NovSU, according to the RISC, currently loses about 100 publications indexed in the Scopus, and 200 in the WoS. This means that if the number of publications of the authors of the organization indexed in the Scopus and the WoS will grow due to conferences (the materials of which are most often published in such databases), the discrepancy between the indicators of Russian and foreign scientific citation indices will only grow. And timely publication of articles in the RISC will not be able to correct this situation. This phenomenon should be taken into account when planning projects aimed at increasing the level of PA.

It should also be taken into account that an ideal system of scientific citation does not exist, and this is confirmed by the seriously differing data of journals according to versions of different systems of scientific citation. But the active cooperation of the owners of the platforms on which these systems work, the desire to increase the purity of scientific knowledge, allows us to hope that someday the indicators of these three systems will correlate and complement each other, and not complicate the analysis and evaluation of the publication activity of a scientist or organization.

5.3. University publishing strategy development

The formation of an effective publishing strategy of a modern university is a rather complicated and expensive process (Shipilova, Mkrtichev, & Asaeva 2019). Undoubtedly, the costs of its implementation can be paid off by budgetary funds, by which the Government of the Russian Federation through the Ministry of Science and Higher Education stimulates universities that reach certain heights in this direction. NovSU, like many Russian universities, seeks to develop a full-value strategy, which implies not only a set of plans and tasks, the implementation of which involves achieving the long-term goals of the university's development in the field of publication activity, but also the necessary resources to solve these problems.

Unfortunately, even a framework document defining the principles of scientific policy and the scientific development strategy of an organization, conceptual approaches to the process of organizing publication activities at NovSU, conditions for building and managing a personal publication career for university scientists has not yet been adopted, although some projects in the field of publication activity are being successfully implemented:

- as part of the motivation system: material incentives for authors of publications in editions indexed by the Scopus and the WoS;
- as part of expanding the resource base of the publication process: the Center for the Development of Publishing Activity of NovSU was created, which provides organizational and methodological support for the publication process, monitoring and updating the profiles of NovSU authors in scientometric databases;
- within the framework of the system of further education: the formation of information management skills of NovSU authors through training seminars and courses;

- in the framework of the organization of conferences: using the resources of the university to provide organizational, methodological and financial assistance to authors, attracting professional translators from the teaching staff to translate articles into English, etc.;
- in the field of scientific periodicals of NovSU: the formation of high standards of publication, strict selection of participants in the publishing process (both authors of publications, and the publishing team - editors, reviewers) (Lisichkina, Zhuchkov, & Kuzina, 2019).

Of course, individual, disparate measures that do not constitute a single system, and conducted on an irregular basis, can give only a slight short-term effect.

6. Findings

Studying and analyzing materials on the research topic, identifying the most urgent problems in the field of development of NovSU PA allow us to conclude that managing publication activity and improving the university's rating due to this direction is possible provided that a number of multilevel projects are developed, which need to be initiated and implemented as part of the main university development strategies.

6.1. Creating an environment for increased publication activity

In order to create a favorable environment for the growth of publication activity at the university, the active efforts of research project managers and the development of a strategy for PA are required:

- conducting scientific events with the subsequent publication of materials in indexed editions of international level;
- short-term projects to improve the skills of scientific authors of publications of an international level (aimed both at developing common competencies and developing individual scientists according to individual programs) (Arefiev, 2013; Koshkarova & Usynina, 2015);
- organizational and financial support for the publication activity of authors.

The indicated areas of activity are very suppositive and broad. Any of them includes multi-level projects, which can, moreover, be combined with each other in various combinations.

6.2. Systematic work with scientometric databases

The organization of the university's continuous work with international scientometric databases is implied – timely and correct reflection of information in these databases, work with the profiles of authors and the organization as a whole in scientific indexing systems, as a result of which the university can also receive a positive increase in the indicators of PA. In addition to working with profiles, the following should be carried out on a regular basis:

- addition / correction of information on publications in systems that determine the parameters of the university PA;
- informational and methodological assistance to authors when publishing articles in external (non-university) editions (Kirillova, 2018).

Within the framework of the indicated areas, individual projects are possible, for example, systematic work with publications of a certain period of time, work on indexing monographs, systematic work on updating the profiles of leading scientists of the organization, etc. In this case, project activity allows not only measuring the results of PA, but also applying a systematic approach to working with databases.

7. Conclusion

The study of practices of accounting, analyzing and evaluating the publication activity and the effectiveness of scientific activities in the organization allows us to identify the following main areas of improving the management process of PA:

- the formation of a scientific policy in order to increase the effectiveness of the scientific activities of the organization in the context of tightening requirements for the publication activity of the university;
- development of the university's publication strategy based on an analysis of methods for increasing publication activity and scientific trends;
- the use of effective scientometric tools to manage the research activities of the university (for example, Lavrik, Pleshakova, & Kalyuzhnaya, 2019);
- the formation of information and management skills of a modern author - a university teacher: personal knowledge and publication career management;
- active application of principles, methods and indicators of evaluating authors' and the organization's PA;
- stimulation of publication activity of authors and research teams;
- creating an environment conducive to increasing the number of publications in high-ranking journals and increasing the citation of scientific articles;
- increasing the significance of the results of research activities of the university as a whole.

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