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Serhii Nazarovets

Letter to the editor: controversial practice of rewarding for publications in national journals

State Scientific and Technical Library of Ukraine, Kyiv, Ukraine

serhii.nazarovets@gmail.com

<http://orcid.org/0000-0002-5067-4498>

Abstract

The letter to the Editor refers to the controversial research evaluation practice in Ukraine and which is based on counting the number of publications in journals included in selected citation databases, for instance Scopus. I have selected fifty journals in which Ukrainian scholars have written the largest number of articles and reviews for 2015-2019 (Scopus data). I found that 78% of these titles are journals of Ukrainian publishers, or Ukrainian translated journals. Accordingly, current Ukrainian evaluation practice leads to the higher chances of state recognition and funding being received mainly by institutions whose journals are already presented in citation databases, without assessing the scientific impact of research outputs.

Keywords: Science policy; Research evaluation; Research output; Scientific journal; Ukraine

Introduction

In Ukraine, there is bonuses practice for publishing articles in journals represented in Scopus and Web of Science Core Collection. This financial and image motivation is mainly provided only for the number of publications, without considering, for example, normalized weighted indicators (Mryglod and Nazarovets 2019). According to Ukrainian officials, a publication in journals included in international reference databases helps Ukrainian scientists with the choice of optimal channels of presentation of their research results and promotes integration into the world scientific space.

However, Ukrainian scientific officials do not consider that one of the main sources of income of Ukrainian publications it is maybe publications in the national journals (Guskov et al. 2018) and a large number of Ukrainian publications in the references databases may not be indicative of the international integration of the scientist or institution, but may depend on the publishing activity of certain Ukrainian journals. Therefore, such a motivation policy may not achieve the set goals, but instead, simply

reward certain local scientific unions whose journals are already presented in the relevant reference databases.

The purpose of this short study is to determine the role of Ukrainian journals in the presentation of the results of scientific activity of Ukrainian scientists in Scopus and to understand whether the Ukrainian state assessment of scientific activity really encourages scientists to present research results in various international scientific journals.

Method

I searched for articles and reviews of Ukrainian scientists for the period 2015-2019 in Scopus and I have made the top-50 journals according to the number of publications which authors affiliated with Ukraine. Search query: AFFILCOUNTRY(Ukraine) AND (LIMIT-TO (PUBYEAR,2019) OR LIMIT-TO (PUBYEAR,2018) OR LIMIT-TO (PUBYEAR,2017) OR LIMIT-TO (PUBYEAR,2016) OR LIMIT-TO (PUBYEAR,2015)) AND (LIMIT-TO (DOCTYPE,"ar") OR LIMIT-TO (DOCTYPE,"re")) AND (LIMIT-TO (SRCTYPE,"j")). The bibliometrics information was received on March 11, 2020. For each of the selected journals, I was found CiteScore and the country of the publisher. Translated journals have been identified by the publisher country of the original name.

Results

In total, for 2015-2019, Ukrainian scientists published 47,131 articles and reviews of which 18,811 were published in selected top 50 journals. It turned out that 39 of the 50 selected journals were the journals of Ukrainian publishers or founders (15 titles are translated journals) in which 15,480 publications were published. This is almost a third of all published articles and reviews of Ukrainian scientists during the study period.

In addition, 2 of these selected Ukrainian journals belong to Discontinued sources from Scopus (942 works have been published in these journals by Ukrainian authors).

Curious incident associated with the «Low Temperature Physics» – this journal is presented in Scopus under its original transliterated title «Fizika Nizkikh Temperatur» (<https://www.scopus.com/sourceid/21100875598>), and translated version of the journal is simultaneously presented in Scopus (<https://www.scopus.com/sourceid/13789>). Thus, the articles of the journal are indexed twice in Scopus. This erroneously increases the number of publications and this makes it impossible to correctly calculate the h-index of the journal's authors.

Table 1. The top-50 journals according to the number of publications which authors affiliated with Ukraine in 2015-2019

Source Title	CiteS core	2015	2016	2017	2018	2019	Total	Country
Eastern-European Journal of Enterprise Technologies	0,85	41	340	560	530	349	1820	Ukraine
Problems of Atomic Science and Technology	0,46	253	185	180	262	219	1099	Ukraine
Actual Problems of Economics**	N/A	398	322	N/A	N/A	N/A	720	Ukraine
Journal of Nano- and Electronic Physics	0,5	121	116	141	151	126	655	Ukraine
Wiadomosci Lekarskie	0,15	0	24	80	252	293	649	Poland
Telecommunications and Radio Engineering*	0,57	153	131	129	127	90	630	Ukraine, Russia
Low Temperature Physics*	0,77	89	115	135	117	103	559	Ukraine
Naukovyi Visnyk Natsionalnoho Hirnychoho Universytetu	0,77	97	81	126	126	122	552	Ukraine
Journal of Mathematical Sciences*	0,26	81	93	143	104	125	546	Ukraine, Russia
Materials Science*	0,43	86	107	104	100	111	508	Ukraine
Ukrainian Journal of Physics	0,51	120	114	100	101	71	506	Ukraine
Cybernetics and Systems Analysis*	0,64	88	103	95	100	99	485	Ukraine
Voprosy Khimii i Khimicheskoi Tekhnologii	0,33	84	67	63	109	137	460	Ukraine
Technical Electrodynamics	0,42	77	115	70	107	68	437	Ukraine
Functional Materials	0,34	83	69	79	96	89	416	Ukraine
Ukrainian Mathematical Journal*	0,32	82	90	88	76	74	410	Ukraine
Journal Of Physical Education And Sport	1,29	30	51	92	118	115	406	Romania
Metallofizika i Noveishie Tekhnologii	0,33	48	99	93	90	69	399	Ukraine
Powder Metallurgy and Metal Ceramics*	0,43	80	74	69	74	70	367	Ukraine
Georgian Medical News	0,22	25	38	63	77	159	362	Georgia
Journal Of High Energy Physics	4,79	57	58	69	102	63	349	Germany
Nanoscale Research Letters	3,22	59	115	150	16	6	346	Germany
Economic Annals-XXI	0,4	150	75	62	39	19	345	Ukraine
Journal of Automation and Information Sciences*	0,19	69	74	64	68	49	324	Ukraine
Ukrainian biochemical journal	0,47	72	69	55	52	59	307	Ukraine
International Applied Mechanics*	0,98	53	54	62	68	47	284	Ukraine
Oftalmologicheskii Zhurnal	0,11	33	60	58	77	48	276	Ukraine
Chemistry and Chemical Technology	0,47	58	49	58	57	39	261	Ukraine
Physical Review B	3,7	0	64	68	65	56	253	USA
Hydrobiological Journal*	0,31	50	44	50	45	55	244	Ukraine

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics	3,86	38	56	49	45	45	233	Netherlands
Metallurgical and Mining Industry**	N/A	222	N/A	N/A	N/A	N/A	222	Ukraine
Nuclear Physics and Atomic Energy	0,21	54	53	38	43	32	220	Ukraine
Condensed Matter Physics	0,76	89	33	31	41	22	216	Ukraine
Vestnik Zoologii	0,41	48	46	46	42	29	211	Ukraine
Strength Of Materials*	0,66	52	38	41	42	31	204	Ukraine
Theoretical And Experimental Chemistry*	0,49	46	42	40	41	33	202	Ukraine
Biopolymers and Cell	0,31	70	40	33	35	23	201	Ukraine
Physical Review D	4,12	41	49	36	37	38	201	USA
Cytology And Genetics*	0,38	39	42	41	42	33	197	Ukraine
Physical Review Letters	8,64	33	31	47	42	42	195	USA
Problems and Perspectives in Management	0,39	10	6	55	62	52	185	Ukraine
Journal of Superhard Materials*	0,75	44	39	35	38	25	181	Ukraine
Experimental Oncology	0,97	36	37	34	32	38	177	Ukraine
Problemy Radiatsiinoi Medytsyny Ta Radiobiologii	0,42	37	25	34	38	40	174	Ukraine
European Physical Journal C	4,46	26	28	43	31	44	172	Germany
Radioelectronics and Communications Systems*	0,39	41	43	34	27	26	171	Ukraine
Journal Of Alloys And Compounds	4,12	35	33	38	33	26	165	Netherlands
Mining of Mineral Deposits	N/A	0	54	40	28	34	156	Ukraine
Problems of Cryobiology and Cryomedicine	0,13	58	30	29	15	21	153	Ukraine

* Translation of the journal

** Discontinued sources from Scopus

Conclusion

In the letter, I presented an analysis of the publishing activities of Ukrainian authors for the period 2015-2019, according to Scopus data. It turned out that the most popular journals among Ukrainian authors, according to the number of publications, are journals of Ukrainian publishers and English-language translations of Ukrainian journals. In addition, CiteScore indicates that these are generally not the most influential journals. Thus, the practice used to reward scientists and institutions in Ukraine probably does not encourage Ukrainian scientists to seek the optimal channel for the presentation of their research outputs. Instead, most Ukrainian scientists are trying to quickly publish as many papers as possible.

Of course, Ukraine must take care of the development of its own scientific periodicals and use of information from authoritative references databases can help Ukrainian scientists in the fight against cronyism (Curry 2018). However, the practice of rewarding Ukrainian scientists exclusively for a large number of publications is mostly in local journals, leads to the fact that influential and promising research may remain undervalued and under-funded by the Ukrainian Government. These miscalculations of Ukrainian scientific policy must be eliminated.

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