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KU Leuven, Belgium

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Wolfgang Glänzel, Sarah Heeffer, Pei-Shan Chi, Ronald Rousseau

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Publishing contribution of editorial board members to bibliometric indices of Library and Information Science journals

Nikolay A. Mazov^{1,2} and Vadim N. Gureyev^{1,2}

{MazovNA, GureyevVN}@ipgg.sbras.ru

¹State Public Scientific Technological Library, Siberian Branch of the Russian Academy of Sciences, Voskhod 15, Novosibirsk (Russia)

²Trofimuk Institute of Petroleum Geology and Geophysics, Siberian Branch of the Russian Academy of Sciences, Koptyug ave. 3, Novosibirsk (Russia)

Introduction

Editorial board members (EBMs) of academic journals are believed to be the most reputable researchers authorized to provide rigorous peer-review processes, maintain ethical principles, guarantee high quality of published materials, and consequently facilitate the advance of science. Considering a sufficient number of studies on the composition, efficiency, and functioning of EBMs, a relatively recent trend evaluating an impact of EBMs on journal bibliometric indices seems to be studied to a far less degree. EBMs may increase bibliometric indices of parent journals via publication activity including publishing in parent journal and citing parent journal in their papers in that journal (self-citations) and other sources ('hidden' self-citations). Direct publication contribution of EBMs to parent journal as compared to common authors was firstly studied by Campanario (1996). Another study (Campanario, González & Rodríguez, 2006) analyzed EBMs contribution to impact factor (IF) detecting the percentage of citations made by EBMs of the analyzed journal. This paper aims at studying the publishing contribution of EBMs to the ranks of Russian LIS journals.

Data and methods

The sample includes 22 leading LIS journals published in Russia. The sample was organized as described in (Mazov & Gureyev, 2019) and divided into three groups according to 2-year IF based on the Russian Science Citation Index (RSCI) as of 2018. The distribution revealed that the low-tiered group (IF 0.4 – 0.799) includes library journals or serials with a long history: *Automatic Documentation and Mathematical Linguistics*; *Automation and Remote Control*; *Bibliography*; *Bibliosphere*; *Information Security Problems*. *Computer Systems*; *Russian Journal of Library Science*; *Software Engineering*. The middle-tiered group (IF 0.8 – 0.999) includes respectable journals both on library and information science topics with a long history: *Information Resources of Russia*; *Information Society*; *Journal of Information Technologies and Computing Systems*; *Proceedings of Voronezh State University*; *Scientific*

and Technical Information Processing; *Scientific and Technical Libraries*; *Systems and Means of Informatics*; *Vestnik NSU. Series: Information Technologies*; *Vestnik of Moscow City University. Series: Informatics and Informatization of Education*. The top-tiered group (IF > 1) comprises journals devoted to information science issues and is characterized by a rather recent foundation: *Business Informatics*; *Computational Technologies*; *Informatics and Applications*; *Informatics and Education*; *Journal of Applied Informatics*; *Ontology of Designing*. We analyzed papers published in 2016–2017 and citations made in 2018.

Results and discussion

Contribution of EBMs by scholarly output

EBMs papers are mainly prepared at a high level and accrue more citations. However, sometimes one may observe the opposite trend of a lower quality preparation of manuscripts by EBMs relying on superficial refereeing due to their official power (Schiermeier, 2008). Thus, it can be concluded that in the former case EBMs papers would gather a high number of citations and increase journal IF, while in the latter case they would adversely affect IF.

We failed to reveal significant dependence between IF and a share of papers by EBMs in a parent journal from the total number of journal papers: all three groups comprised approximately 16% of EBMs papers (Figure 1). Considerable differences were detected between a share of EBMs papers in a parent journal from a total number of EBMs papers in all sources. EBMs of top-tiered journals are published significantly more rarely in parent journals as compared to EBMs of middle- and low-tiered journals. When considering all journals, a share of papers in parent journals from the total number of papers in all sources was 7.6% on average.

In all three groups, we found a relatively uniform distribution of EBMs papers and usual authors, as well as a low share of papers in a parent journal as compared to the total number of papers. EBMs of top-tiered journals were found to be published more frequently in other sources rather than in a parent journal. We failed to detect any relationship between

IF and a share of papers by EBMs as it is, i.e., independently of citations.

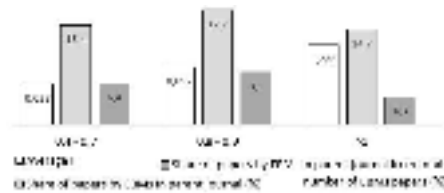


Figure 1. Relationship between IF and a share of EBMs papers.

Contribution of EBMs by citations

Citation contribution of EBMs to journal rank is twofold: either EBMs papers in parent journal can be cited or EBMs themselves can cite a parent journal from other sources ('hidden' self-citations). Figure 2 depicts both types of contributions.

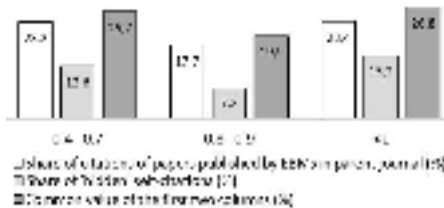


Figure 2. Relationship between IF and a share of citations to EBMs papers and/or a share of citations to parent journals made by EBMs.

Across all Russian LIS journals, 21.1% of citations belong to EBMs papers, and 11.5% of citations are made by EBMs from other sources. The common value of these two indices excluding overlapping is 23.9%. Interestingly, middle-tiered journals demonstrate lower indices as compared to top-tiered and low-tiered journals.

Dependence between IF and EBMs publication activity

To detect a direct effect of EBMs on IF, we (a) removed EBMs papers from the denominator of IF formula, (b) removed citations to EBMs papers from the numerator, and (c) removed citations made by EBMs from other sources to parent journal from the numerator of IF formula (Figure 3).

We detected a significant impact of EBMs in top-tiered and a slightly lower effect in low-tiered journals, while the middle-tiered group demonstrates a zero or reverse trend since the absence of EBMs papers in a parent journal paradoxically would have resulted in slightly higher journal ranks.

Finally, we counted the overall share of EBMs contribution according to three analyzed characteristics, i.e., EBMs publications in a parent journal, citations to EBMs publications in a parent

journal, citations to a parent journal made by EBMs from other sources: 10.67% in low-tiered journals, 0.78% in middle-tiered journals, and 14.16% in top-tiered journals.

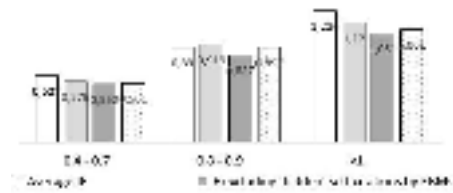


Figure 3. IF values including and excluding EBMs publishing contribution.

Middle-tiered journals stand alone because of the lack of EBMs impact on journal rank. In some journals, we revealed a negative effect (up to 18.9%) of EBMs papers on journal indices. On the contrary, some journals from top-tiered and low-tiered groups revealed a significant positive impact from EBMs publication activity on their rank (up to 34.1%). Interestingly, EBMs contribution may affect journal IF to such a great degree that some journals from our sample fell in a different subsample after the exclusion of EBMs papers and citations.

Conclusions

Analyses of the scholarly output of EBMs in Russian LIS journals enabled us to reveal some patterns in publishing contribution of EBMs to journal rank, which enhance knowledge on editorial board functionality in LIS, as well as can be used by editors-in-chief in optimizing editorial policy or changing editorial board composition.

Acknowledgments

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