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OBSTACLES TO PUBLICATION IN ISI JOURNAL FOR THE SCIENTISTS FROM TRANSITION COUNTRIES: HOW TO OVERCOME THEM

Abstract

Publication in journals that are indexed in Web of Science© is an important venue for scientific researchers, although previously published papers indicate that there are substantial obstacles for researchers from developing countries. Four critical questions emerge: (1) How to pick a topic that is relevant for publication?, (2) How to select a journal for possible publication of research results?, (3) How to arrange the paper in accordance with IMRAD outline?, and (4) How to efficiently write the paper?. The goal of the paper is to propose simple yet highly applicable advice when answering these questions and thus pursuing the publication of a paper in the scientific journal with a closer look to economics, business and management journals indexed in Web of Science© that focus on Eastern European countries.

Keywords: publication, scientific research, knowledge economy

1.   INTRODUCTION

Science is one of the most important human activities, since its result is collective, consistent, structured and reputable knowledge. Publication of scientific research results enables distribution, development and usage of knowledge. Contemporary scientific research is conducted in most of the cases in the institutional environment of universities and research institutes (Cooter et al., 1994). Researchers employed at those institutions are faced with the ever-increasing requirements for appointments that are vividly described by the well-known phrase "Publish or perish" (De Rand et al., 2005). It is of the highest importance where the results of the research are published and in last few decades journals indexed in Web of Science© is widely accepted standard (Adam, 2002).

Scientists from Eastern European (EE) countries that research economics, business and management issues have number of barriers towards publication. First, economics, business and management research in capitalist and communist/socialist societies was different due to the ideological reasons to the early 1990s when the perestroika caused the breakup of the former Soviet Union, uprisings in EE countries, and termination of the Cold War (Brown, 2007). Researchers from EE countries had a hard time in catching the step with their colleagues from developed countries, due to the diverse institutional milieu of scientific research (Olenik, 2012) and to the fact that authoritarianism regimes do not represent an enticing surroundings for the scientific production (Josephson, 1996). Second, language issues are important barriers for authors from non-English speaking countries, especially in social sciences (Gantman, 2011). Third, future professionals are rarely instructed in scientific writing and manuscript preparation (Keys, 1999). The only trough painstaking process of trials and errors researchers learn on four important issues: (1) choice of the topic relevant for publication, (2) choice of the journal for possible publication, (3) organization of the paper according to IMRAD outline, and (4) writing a paper with high level of proficiency.

The goal of the paper is to propose the framework that could facilitate the process of writing and publication of papers in scientific journal indexed in Web of Science©. The paper will also give a brief overview of journals indexed in Web of Science© that mostly publish the research on EE countries in the fields of economics, business and management.

2.   THE 4 C'S OF SCIENTIFIC WRITING AND PUBLICATION

In order to publish the result of the scientific research, it has to be presented in the form of a scientific paper, which requires the skills of scientific writing. Scientific writing is based on the old tradition since the first scientific paper was published in the 17th century (Larsen et al., 2010), and some authors consider it even a highly demanding craft (Tychinin et al., 2005).

Due to the high standards that is imposed to the journals indexed in Web of Science© it is hardly possible, that badly written paper (even highly relevant), would be published in such a journal. However, scientific writing is rarely taught, and scientists in most of the cases have to learn its basic principles of the process of trials and errors.

A vast number of researchers wrote on the topic of writing and publication of scientific paper. Search on the topic "how to write a scientific paper" in Web of Science© database [10-08-2012] reveals 292 papers published in 240 journals (e.g. International journal of science education, Research in science education, Science education, Scientometrics, and Journal of Research in science teaching) from 47 countries (England, Canada, Spain, Netherlands, Germany and ltaly with more than 10 publications). The authors deal with a number of topics like what constitutes an interesting research (Bartunek et al., 2006), publication of theoretical papers (Rindova, 2008) and qualitative research (Pratt, 2009), and reasons for rejection of papers (Kilduff, 2007; Linton, 2012). Also, numbers of relevant books also cover the topic (Day, 1998; Hartley, 2008).

In order to summarize the most important recommendations for the purposeful introduction of tentative paper authors of articles in Web of Science© indexed journal, framework is proposed that could facilitate the process: "The 4 Cs of scientific writing and publication" (Figure 1). The 4C's framework is based on the proposition that following skills are important for successful publication of scientific research: (1) choice of the relevant topic that is explored according to the highest quality standards (Competence), (2) targeting the right journal with the right topic (Course), (3) careful planning of the composition of the paper (Composition), and (4) relating theory to methodology supported by competence in proficiency in writing (Content).
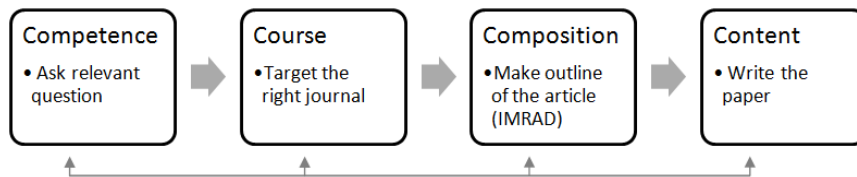

Figure 1: The 4 C's of scientific writing and publication, (Source: © Mirjana Pejić Bach)

It is important to stress that the proposed writing framework is not in any way typical exclusively to the journals indexed in Web of Science©. However, the proposed framework is suitable path to the publication of journals indexed in Web of Science© since most of them impose very high publications standards regarding both content relevancy and writing skills of the author.

2.1. Competence: Relevant research question

Asking relevant scientific question that will be a basis for a further development of goals and the hypothesis of the paper is the most important step in scientific writing (Moffin, R., 2011). There are different paths towards asking relevant questions. Author can read papers on similar topics from quality journals, discuss the topic of your paper with her mentor or colleagues, and present her paper at the conference. Research question has to be matched with the targeted journal and with the future readers in mind. During the writing process relevant research question will be often reformulated.

Choosing relevant research question is neither subject nor journal specific. However, journals that are locally oriented are more likely to publish a paper that discussed already familiar topic only in new geographic or industry settings (e.g. Entrepreneurial intentions in Croatian SMEs). On the other hand, A+ journal would publish only papers that are raising novel questions using cutting-edge statistical and mathematical techniques.

How could author test whether her or his research question is relevant enough to be published in a particular journal? The answer to the question depends on the editor's decision. The author could presume the answer to such a question by carefully reading articles from the past journal issues including last few years, and comparing their research questions with the author's one.

2.2. Course: Targeting the right journal

It is recommended to select possible 2 to 3 journals for publication taking into account that the paper matches the topic of the journal, experience of other familiar authors that already published in the journal, mission statements of the journals, members of the editorial board, and journal quality. In order to minimize rejections, authors should try to match the quality of the paper with the quality of the journal.

Spotlight of this paper is journals indexed in Web of Science. In addition, this paper has focused on journals that are: (1) published locally in some of the EE countries and cover general topics using sample data from regional countries, and (2) published by the established publisher and cover narrow topic like transitional or post-communist economies. In order to track those journals, following steps were conducted. First, journals were tracked by the Journal Citation Report (JCR) and narrowing the search to the field of economics. Second, journals from EE countries were selected. Third, Web of Science was searched using key words "Eastern Europe" and narrowing the field of economics, business and management.

Table 1 presents selected ISI indexed journals that focus on EE countries, with information on country published, its impact factor in 2011, number of issues published per year, the number of papers published in 2010, and % of foreign authors. Most of the journals publish papers in English or are multilingual. Only one journal is published in Russian (Actual Problems of Economics.

Table 1

Selected ISI indexed journals that focus on EE countries

Name of the journal	Country	Impact factor / 2011	Issues/ Year	No of papers in 2010	% of foreign authors in 2010
Acta Oeconomica	Hungary	0.375	4	16	37,14%
Actual Problems of Economics	Ukraine	0.039	12	474	54,36%
Amfiteatru Economic	Romania	0.757	2	51	17,24%
Argumenta Oeconomica	Poland	0.118	2	18	45,56%
Baltic Journal of Management	Latvia	0.188	2	8	91,67%
Communist And Post-Communist Studies	England	0.557	4	33	100%
Czech Journal of Economics and Finance	Czech Republic	0.346	6	25	66,67%
E & M Ekonomie a Management	Czech Republic	0.341	4	46	32,26%
Eastern European Economics	United States	0.333	6	27	78,12%
Economic Computation and Economic Cybernetics Studies and Research	Romania	0.303	4	59	33,90%
Economic Research	Croatia	0.193	4	51	24,65%
Economics of Transition	England	0.679	4	27	92,59%
Ekonomicky Casopis	Slovakia	0.274	10	55	43,37%
Ekonomista	Poland	0.141	5	37	10,00%
Emerging Markets Finance And Trade	United States	0.953	6	53	90,00%
Emerging Markets Review	Netherlands	1.067	4	20	99,60%
International Journal of Strategic Property Management	Lithuania	1.620	4	27	80,00%
Inzinerine-Ekonomika	Lithuania	1468	5	55	30,00%
Journal of Business Economics and Management	Lithuania	2388	4	34	58,82%
Panoeconomicus	Serbia	0.396	4	26	63,33%
Politicka Ekonomie	Czech Republic	0.380	6	42	16,39%
Post-Communist Economies	England	0.459	4	31	100%
Prague Economic Papers	Czech Republic	0.256	4	21	41,67%
Proceedings of Rijeka Faculty of Economics	Croatia	0.400	2	11	74,25%
Romanian Journal of Economic Forecasting	Romania	0.246	4	72	36,51%
Technological and Economic Development of Economy	Lithuania	3235	4	46	40,43%
Transformations in Business and Economics	Lithuania	0.991	3	57	90,00%
Transylvanian Review of Administrative Sciences	Romania	0.284	3	35	34,21%

Source: Authors' research

However, it is important to stress that also other journals indexed in Web of Science also publish research results of the authors from EE countries even with regional topics. Practical approach to targeting a suitable journal in Web of Science is following. The author should try to search the Web of Science database with the tentative title of the emerging article under the Topic field. After careful examination of the results, it would be possible to track possible journals that publish papers on similar topics, and thus broaden the list of possible journals for publication.

The better approach is also to track Call for special issues. Such lists are regularly published on the websites of the journals, but also of the publishers. One good source is Emerald Call for Papers available at: http://www.emeraldinsight.com/authors/writing/calls.htm

One important obstacle for publication of authors from EE countries in Web of Science indexed journals is that they do not have the access to the Web of Science database. However, readers without the access to JCR can check the status of the journal by using Thomson Reuters Master Journal List available at http://ip-science.thomsonreuters.com/mjl/.

2.3. Composition: IMRAD composition

Different types of scientific papers are published in scientific journals: case studies, survey reports, theoretical papers, and review papers (Whiteside, 2004). IMRAD composition of the paper (Introduction-Methods-Results-Discussion) could be recommended as a good path regardless of the paper type (Day, 1989) although other compositions like DSB (Definition, Solution and Benefits) are also possible (Marher, 2000). IMRAD framework is based on the four parts of the paper: (1) Introduction (What problem was studied?), (2) Methods (How was the problem studied?), (3) Results (What are the results?), And (4) Discussion (What do the findings mean?), but it does not imply that sections of the paper should have those exact names. Whiteside (2004) considers that "a paper is an organized description of hypotheses, data and conclusions, intend to instruct the reader" and emphasize the importance of using an outline in writing papers. Outline, as a written plan for the organization of the paper, is developed before writing the paper, and it describes the content of the paper usually in the bulleted list before the paper is actually written.

IMRAD composition of the paper is neither obligatory nor typical only for journals indexed in Web of Science. However, it is one of the most common compositions of the scientific papers on such articles. The author may wonder how to choose such a composition of the paper that would be more likely to be published in high-standard journal, such as are those indexed in Web of Science?

Practical approach is to find a good example of paper on a similar topic, and examine how the paper is organized. The next step would be to make an outline for the content of the paper in the form of a bullet list of the future paragraphs and even sentences. Only after that step is finalized, authors should start to write, although she shall probably change this outline in the process of writing. Although experienced authors sometimes write paragraphs on paper and

combine them later in the paper, novice writer will probably not yield the best result of that approach.

The following sections will provide rather detail advice to novice writers on what constitutes paper that follows IMRAD composition.

Title of the paper, abstracts, keywords

Title of the paper should be understandable and informative, and it should not be too long. Some of the journals even prescribe the maximum number of words in the title. Practical approach is to examine titles of the papers already published in targeted journals. Abstract could consist of sentences explaining background, purpose, results, methods and conclusion of the paper. It is important to carefully select keywords because they are used in database search, and their good choice increases probability that other authors will read and hopefully cite the paper.

Introduction

The purpose of the introductory section of the paper is to inform the readers why the scientific research has been conducted. By reading papers in quality journals one can easily notice that most of the introduction section consists basically on four paragraphs. First paragraph usually describes the current knowledge on the topic being researched. Second paragraph sets direction toward the purpose of the paper by revealing what is important and not yet examined. Third paragraph outlines the purpose of the paper and it states briefly methodology that has been utilized in the paper. Fourth paragraph usually describes other sections of the paper. Introduction paper should in fact convince the editor and the reader that the paper is worth publishing and reading.

Authors often decide to add one more section, usually named Literature review or Theoretical background in which they elaborate the current knowledge on the topic of the paper. Under this section authors often develop research hypothesis based on the previously published research and give theoretical reasons for them. If research hypotheses cannot be supported within the adequate theoretical framework, they can be reformulated into research propositions, or research goals.

Methods

A methods section of the paper describes the process author carried on in order to finish the research. It depends on the research methods applied in the paper, and main two groups are quantitative and qualitative, but they also can be combined together (Creswell, 2008). In practice a wide variety of examples exist. Methods section is missing if the paper is completely theoretical in its nature. Practical approach would be to find several papers with methods similar to the one used in the paper, and then read methods sections very carefully in order to find inspiration and examples of good text.

Results

A result section of the paper should just present the facts revealed by the research, and not their interpretation. Data can be presented in tables, figures or graphs, but the textual part of the results should not describe what is obvious from them. The content of this section strongly depends on the methods being used.

Again, it is useful to find several papers with methods similar to the one used in the paper, and then examine the content of the results sections in order to find the best practice.

Discussion

Discussion part of the paper is usually one that is hardest to write, and its deficiencies are the most often reason for the papers being rejected. The author should try to organize this part of the paper in order to summarize the findings of the research, compare the results being expected from previous research or experience, propose practical implications of the results, explain key limitations of the research, and suggest paths for the future research.

Advice for the novice author would be to combine discussion section on the following paragraphs. First few paragraphs should summarize the findings of the paper and then compare them with the results of the previous researches. It is often explained in this part of the paper if hypothesis have been rejected or accepted and why. If research goals have been used in the paper, this part of the paper could be also organized around explaining if they have been filled or not. Next paragraphs should explain practical and managerial implications of the paper results. Last two paragraphs should be devoted to the limitations that the reader has to take into account while validating the research results, and to the directions that the paper sets for the future research.

2.4. Content: Writing skills

Writing skills are attained in a number of ways (e.g. experiential learning, working in teams with knowledgeable co-authors, getting reviews from peers, and writing reviews). Reading high-quality scientific papers published in targeted journals indexed in Web of Science are of the highest importance. Again, it is useful to find several papers on the similar topics and read them carefully.

It is of the greatest importance for the inexperienced authors to examine sentence by sentence of every part of the paper in order to understand the composition of the paper completely. In best papers, every word is written for a good reason, and there is no redundant or too little information.

Writing a high quality scientific paper is a result of author's capability to appraise and summarize previously published research, and there are several sources that offer relevant instruction on the process and its purpose with examples for practice (Indiana University, 2005). Plagiarism occurrence increased after the invention of the World Wide Web, and easy copy-pasting with only a few clicks of the mouse (DeVoss, 2002). Often author changes few words and their order, but it is considered plagiarism even he/she cite the source since nothing new is in rewriting other author's words. Plagiarism is considered as a serious unethical act, but there are different levels of plagiarism. Number of journals applies software for identification of plagiarized text (Ledwith, 2008), and impose severe actions against authors that have been found to submit a paper with plagiarized text.

Writing is a very slow process that consists of several phases: prewriting (making notes, describing ideas, drawing figures), writing (writing a paragraph by

paragraph skipping from sections), revision (read the written text and correct the errors and illogicalities), and editing (checking accuracy and correcting errors), and proofreading (read the paper again in order to check for previously checked errors). Write with your readers in mind considering their level of knowledge of the field and motivation for reading, and always focus on the purpose of the paper (Stojmenović et al., 2012). After finishing the paper it is best to leave it for some time and re-read it again. It will give a distance to the author that will allow her or him to assess the quality of the paper more objectively.

Advice for increasing writing skills could be summarized as follows: (1) read a number of papers and learn to recognize good writing, (2) plan future content of the paper carefully, (3) avoid plagiarism in any case and practice skills to summarize and critically evaluate others' work, (4) write with the future reader in mind, and (5) revise, edit and proofread the paper in order to avoid mistakes and illogicalities.

3.   SENDING THE PAPER TO THE JOURNAL

Scientific journals usually publish instructions for authors. The paper should be sent to the journal following closely those instructions. It is also a custom to write a kind letter to the editor with the title of the paper and name of co-authors (if any), that clearly states that the paper is not sent for publication to any other journal. Letter to the journal editor can also contain a brief explanation why the paper is suitable for publication in a particular journal, and what is it scientific contribution.

When the paper is sent to the journal, a decision on its possible publication is given. At the first step, the editor of the paper decides on whether the paper should be sent to the review. Most of the papers are desk rejected, which occurs when editors read the paper and make a decision to refuse the paper without sending it to the reviewer. Otherwise, limited number of capable reviewers would be burdened even more. Linton (2012) lists 7 groups of reasons why in most of the case papers get rejected by the editor: self-identification concerns (e.g. high number of self-citations), reference related (e.g. cite websites, papers in foreign languages, formatting style, partial references), overall style (e.g. using cliché expressions, using undefined acronyms, spelling errors, not following IMRAD structure), figure (e.g. do not label figures or use too much of them), the objectives of the paper (e.g. do not define the purpose of the paper), method (e.g. biased sample, inadequate methods), contribution (e.g. confirm/deny something that is considered obvious or nobody is interested in). Even if the paper gets rejected by the editor, in most of the cases, some advice on how to improve the paper will be given.

If the editor of the journal decides to send the paper to the reviews, peer-review system is applied, which could be double-blind, single-blind or open. Possible decisions of the reviewer are usually: accept the paper as it is (rarely), accept the paper with minor corrections (sometimes), accept the paper with major corrections (in most of the cases), and reject the paper. When the reviewer asks for major changes, authors should not give up on improving the paper. The

Author should try to follow the reviewers' instructions as close as possible. Good review that proposes a number of changes is an excellent leverage toward improving authors' scientific skills. Kind letter to the reviewers with explanations of changes in the paper according to their proposals are good steps to better understanding, and increase the probability of final decision on accepting the paper.

4. CONCLUSION

The message of the paper is that the quality of a scientific paper is a result of the process that consists of reading, researching and writing. All of the three activities are equally important. A scientist has to be able to evaluate the quality of others' work and use it as a role model for its own research with the goal to become the same for future generations. Number of books present principles of scientific research (e.g. Carey, 2011) and has to be studied and practiced carefully and with diligence. Finally, scientific writing is a discipline that has its rules developed from the 17th century, and it takes a lot of practice and hard work to master it.

The question of the paper was how to write and publish a paper in scientific journal with the closer outlook to Web of Science indexed journals. Nevertheless, we would like to conclude the paper with another question: Why publish in ISI journals with impact factor? Some authors consider that basing evaluation of the scientific work only on numbers (e.g. impact factors or number of citations) is considered a reductionism that is embarrassing for science (Wilcox, 2008). Even on the Thomson Reuters' web site there is a warranty on careful usage of impact factor as a sole measure of scientific productivity. Although debate is going on whether bibliometric measures, like impact factor and h-index are sufficient or not, current practice in the scientific community is focused mainly on ISI journals and usage on bibliometric measures as a basis for evaluations of the scientific research quality. Since publication by means of new routes like conference proceedings, open journals and comparable databases (like Scopus) is increasing (Larsen et al., 2010), that practice is likely to change in near future. However, it is likely that rigour in scientific reserach and writting will become even more important in the future in order to increase quality and reliability of scientific contributions.

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