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## EVALUATION OF THE SCIENTIFIC JOURNAL MARKET AND POSITION OF SERBIAN RESEARCHERS IN THE FIELD OF ECONOMICS

Ocena tržišta naučnih časopisa i pozicije srpskih  
istraživača u oblasti ekonomije

### Abstract

Publications in reputable journals are a crucial condition for successful scientific profiling and accomplishment of significant academic results. The primary goal of this paper is to conduct an analysis of the market of economic journals that belong to M20 category and thus have corresponding impact factors. The aim is to emphasize the position of Serbian researchers in this specific market. The empirical results have revealed that journals from the most developed countries have a dominant role on the market and that Serbian researchers publish the results of their studies primarily in neighboring countries. Recommendations are to bring eminent journals into focus of Serbian researchers, but also to encourage further development of domestic journals so that they could be more active in the international market. In addition, the focus of Serbian researchers should be directed toward the hard core of economic science and the goal of further development of economic disciplines should be more clearly emphasized.

**Keywords:** *the market of scientific journals, economics, impact factor, researchers from the Republic of Serbia*

### Sažetak

Za uspešno naučno profilisanje i ostvarivanje zavidnih akademskih rezultata, publikacije u renomiranim časopisima predstavljaju veoma važan uslov. Osnovni cilj ovog rada je da izvrši analizu tržišta časopisa u oblasti ekonomske nauke, koji su referisani u odgovarajućoj M20 kategoriji sa pripadajućim impakt faktorom. Cilj rada je i da ukaže na sveukupnu poziciju srpskih istraživača na ovom specifičnom tržištu. Empirijski rezultati su pokazali da časopisi iz najrazvijenijih zemalja imaju dominantnu ulogu na tržištu, i da srpski istraživači rezultate svojih studija prevashodno publikuju u časopisima iz okolnih zemalja. Preporuke se odnose na potrebu da u fokusu srpskih istraživača budu eminentni časopisi, kao i razvijanje domaćih, koji bi se kasnije aktivno uključili na međunarodno tržište. Isto tako, usmerenost autora u Srbiji treba da bude ka tvrdom jezgru ekonomske nauke i jasno izraženom cilju - razvijanje ekonomskih disciplina.

**Ključne reči:** *tržište naučnih časopisa, ekonomija, impakt faktor, istraživači iz Republike Srbije*

## Introduction

Publications have an important role in accomplishing success in an academic career. They are used to evaluate the work of a researcher. Publications in reputable international journals are thus an indicator of research competence. By publishing the results of a study, an author or a researcher presents them to a wide scientific audience. Research activities thus contribute to an increase in scientific knowledge and improve the quality of human capital in a national economy [27, p. 1716]. The process of publishing research papers in international journals is a long, unpredictable and demanding task. The ratio of accepted papers in leading international journals is about 10% of the total number of applications, which proves that criteria are extremely high, especially when it comes to originality and relevance [19, p. 14]. The primary goal of the scientific community in Serbia is to make their results visible to wider international audience and become recognizable in academic circles globally. Publishing papers in journals covered by Web of Science (WoS) increases the possibility of being cited and presents a necessary requirement for active participation in the market of journals. In order to achieve this, it is important to improve the quality of the national journals and bring them into line with international criteria. This problem is also present in socio-humanistic sciences. The main focus of this paper would be on the economic journals, but only those which according to the latest data from 2015 are listed with selected impact factors.

There is a dominant presence of the journals which come from the most developed countries. The necessity of publishing articles in those journals gives them a crucial advantage in respect to the less eminent journals. Consequently, the demand is not elastic and practically there is no real competition. The main task for researchers from Serbia is to be present in world renowned databases. Serbian authors face obstacles. According to the latest data, there is just one journal of economics with impact factor from the Republic of Serbia. On the other hand, the scientific community has been constantly increasing on the global level, which makes the competition among researchers very harsh, especially when it comes to publishing articles

in reputable journals. Hence, the estimation of the share of the journals from the most developed countries in the total structure of the previously defined market is very important. Also, it is of great importance to determine the position of Serbian researchers on the market of economic journals.

The primary goal is to evaluate the degree to which most prominent journals participate in the market. One of the goals is also to point out key problems which Serbian authors are facing by reviewing their publications. This kind of study has not been conducted in Serbia, which makes it a novelty. Academic contribution of the paper is that it will reveal current situation on the market of scientific journals in the field of economics, providing thereby an evaluation of the dominance of economic journals from developed countries. In the context of formulating policy for evaluating scientific work, estimation of the position of Serbian authors may further open new questions and dilemmas.

In addition to this introduction, the paper also includes a literature review which provides an overview of the most relevant studies that reveal current trends in science development, dominant position and influence of publishing companies and the evaluation of research work in Serbia. The sources used in this study are defined and the overview of journals which are the subject of the analysis is presented in the data and methodology section. The next section involves results and discussion and it presents the ratio of journals coming from certain countries through categories they belong to, the prevalence of Serbian authors in the international journals and the journals published in neighboring countries. Finally, the conclusion provides a short discussion and the guidelines for future studies as well as some recommendations.

## Literature review

According to the contemporary understanding of science, the results of a study or research are not relevant if they are not published and presented to the public and global academic community which can check it, evaluate it and use it for further research [17]. The first commercial publishers of scientific publications appeared in the second half of the

19<sup>th</sup> century. Then, the number of scientists and also the number of published articles began to grow. During the 20<sup>th</sup> century, scientific journals became the basic communication channel in science. Nowadays, the leading journals are published by commercial publishers and they make above one half of the journal market (Elsevier, Springer, Wiley and Taylor & Francis). According to Lariviere et al. [14], the degree of market concentration, i.e. the presence of these four publishers, is the most prominent in the field of social sciences and it amounts to 70%. Monbiot [16] emphasizes that publishers of scientific journals are the cruelest capitalists in the Western world. He further points out that their monopoly practices outgrow corporate frauds and that it is necessary to establish institutions which would enable fair competition.

Recently, a new scientific discipline, scientometrics, was founded with the aim to provide quantitative evaluation of scientific accomplishments. Most commonly, quantitative methods are used to evaluate published papers. That sphere of scientometrics is usually called bibliometrics. Its aim is to measure scientific and academic contribution of an individual or an organization through the following indicators: productivity and citation. Productivity is expressed through the number of published and reviewed articles in eminent journals. The number of citations represents the total citations of an author by other authors in scientifically recognized journals [25, p. 62]. The whole procedure of counting is based on searching bibliographical and citation databases.

Significant increase in publishing nowadays is the result of a constantly increasing academic community. Namely, from the total number of scientists in the history of civilization, about 80 or 90% is living today. By the '60s of the 20<sup>th</sup> century more than 50,000 journals were launched worldwide and over 6 million papers were published. Currently, there are about 300,000 scientific journals and they publish about 1,500,000 papers a year [17]. Price [22] has indicated that the number of researchers in America is skyrocketing with about 1,000 researchers in 1800, 10,000 in 1850, 100,000 in 1900 and about 1,000,000 researchers in the middle of the previous century, with a strong tendency to keep growing. This kind of scientific activity, called "large" science by Price [22], still prevails in the whole

world. Also, for scientists, a task of publishing certain number of papers in the given time period is strictly set. All institutions which need quantitative evaluation of research work turn toward quantitative scientometric indicators [26, p. 611]. Ortinau [20, p. 153] has emphasized that authors need to fulfill or even overcome the expectations of the reviewers and editorial boards by providing convincing and understandable arguments about the significance and relevance of their topic and research question, scientific problems they are dealing with and the significance of the results and conclusions, thus emphasizing the contribution of their study to further development of the sciences.

"Publish or perish" is a widely known and accepted saying in academic circles, and it emphasizes the importance of academic publishing; in many countries it has led to the practice that students of doctoral and even master's studies are obliged to publish in order to obtain a degree [5]. This saying actually means that the basic criterion for the evaluation of researchers is the number of publications. Recently, citations have begun to be used for the same purpose and a new saying, "Be cited or die", appeared. Consequently, solidarity among researchers increased and the number of citations per paper increased.

Klavans and Boyack [11, p. 11] call the authors who are extremely cited superstars, and use them as an example in all-inclusive studies showing that superstars do not publish in isolated communities which are dying away or in communities with less dynamics. Highly productive and cited authors have a tendency to seek new possibilities. Following their stream of thought is very significant in order to understand scientific policy and in order to understand how scientific system functions. Many papers discuss and explore correlations between various indicators that can be used to evaluate success of authors [2]. One of the results where consensus is achieved is that there is a strong correlation between the number of published papers and the number of citations [4, p. 846]. Both these indicators are included in the Hirsch index [8, p. 16570]. The most commonly used indicator of the journal quality is the impact factor. It is a bibliometric indicator which is most widely used. The idea of impact factor was first mentioned by Garfield in the journal *Science* in 1955 [6]. Impact factor for a given

year is a numerical value obtained by dividing the number of citations in the current year to articles published in the previous two years by the number of cited articles published in the period concerned. Hoeffel [9, p. 15] has emphasized that the impact factor is not a perfect tool for quantitative evaluation of articles but that there is no better technique for scientific evaluation of journals and authors. The experience has shown that the most difficult journals to publish in are also the journals with the highest impact factor. A great deal of these journals had existed even before the introduction of impact factor.

In order for an author or a paper to appear in top 5% or 1% of the most cited authors, it is necessary for him/her to have twice more citations than 40 years ago. Such articles usually find their place in prominent journals, although it has to be emphasized that the hierarchy of journals is constantly moving and that being an eminent journal is not a permanent state [15, p. 652]. Investigating research output in Germany, Ketzler and Zimmermann [10] have shown that the number of citations is influenced by the following indicators: publication quality, number of published pages, number of more common articles and a number of co-authors.

It is very important to point out the importance of Internet technologies to the future trends. Google Scholar plays a major role in finding free full-text versions of articles. According to Harzing [7, p. 1060], the use of Google Scholar might redress the traditionally disadvantaged position of the Social Sciences in citation analysis. Academics can now use the web and social websites to disseminate scholarly information in a variety of different ways (profiles in Google Scholar, Microsoft Academic Search, Mendeley, Academia and LinkedIn or any content in SlideShare, ResearchGate). According to Bleda et al. [3, p. 341], in order to be more cited, it is highly important to use such web profiles. Also, by their widespread availability and dissemination through open access media and ORCID system, scholarly outputs witness an improved visibility supposed to cause a better citation performance [24, p. 19].

The evaluation of research output in Serbia and surrounding countries was examined in a wider context by Babić et al. [1, pp. 405-34] and Kutlača et al. [13, pp. 247-65]. For years and years the evaluation of scientific work

was based on the number of published papers. Recently, the additional bibliometric criteria have obtained more importance [18, p. 57]. These are criteria which definitely require adjustment. Serbian citation index has huge importance for the development of bibliometric indicators and provides a more realistic overview of scientific work in a small scientific community such as Serbia. The quality of scientific results is determined based on the several criteria. The first criterion is the influence, and it is presented through the total number of citations and fractionally through the share of the author in the cited paper. The second criterion is an impact factor of a journal, and some general evaluations of the journal quality can also be given. The third criterion is an effective number of articles. The evaluation of scientific work in Serbia is under a huge influence of bibliometrics. Universities use this grading system in the position election procedure. Universities also prescribe certain requirements to PhD students. PhD students are now required to have articles published in adequate categories. These criteria are not identical in all universities or faculties. Taking into consideration that for the Serbian scientific community this is a novelty, there are certain disagreements. For example, institutes in the field of socio-humanistic sciences are fighting against some criteria which, according to their interpretations, represent Americanization of Serbian science and the recognition of only those articles published in commercial journals during position elections [21].

## Data and methodology

Based on the defined subject and goals of the study, the article will test the following hypotheses:

- H<sub>1</sub>: On the market of economic journals, a high level of presence of journals from developed countries becomes more emphasized as the impact factor rises.
- H<sub>2</sub>: Authors from Serbia predominantly publish their research results in the journals of the neighboring countries.

The analysis of the concentration in the field of scientific economic journals uses data from the official website of the Consortium of Libraries in Serbia for Unified Science [12]. 344 journals had predetermined impact factors in the

field of economics in 2015. Based on their impact factors, journals were divided into four categories: M21a, M21, M22 and M23. The short descriptions and explanations of these categories are given in Table 1.

**Table 1: Categories of scientific journals in the field of economics with their impact factors**

Category M20	Description	Economics
M21a	Excellent international journal, which is among the top 10% in its field	34
M21	Top international journal, which is among the 30% in its field	69
M22	Prominent international journal, which is between 30% and 60% in its field	103
M23	International journal which is indexed in SCI or SSCI	138

Source: Author [12].

In order to determine the position of Serbian researchers on the market of economic journals, it is essential to give an overview of their presence in the journals published in the countries of Southeastern Europe. According to the impact factors for 2015, only three journals from Southeastern Europe were on this list. Two journals are from Croatia and one is from Serbia. All three journals belong to the same category M23. Economic Research – *Ekonomska istraživanja* is the best-ranked journal among them. More information about these journals is given in Table 2.

The examination of the position of Serbian researchers on the market of scientific economic journals does not use the number of citations or the number of authors present on the WoS, but the number of articles in which Serbian authors (one or more) were present in the given time period. The time period under investigation is divided into the period by 2010 and after 2010 in order to conduct more adequate comparisons. The sample included 45 journals obtained through the service ScienceDirect [23]. Those journals are divided into M20 categories: 5 journals in M21a, 14 journals in M21, 17 journals in M22 and 9 journals in M23 category. The titles of the journals and their corresponding categories are presented in Table 3.

**Table 2: Economic journals from the Southeastern Europe with impact factors**

Journal	Country	Category	Category M20	Impact factor (2015)	Service
PANOECONOMICUS	Serbia	Economics (274/344)	M23	0.412	Open Access Journal
ECON RES - EKON ISTRAZ	Croatia	Economics (261/344)	M23	0.466	Taylor & Francis
ZB RAD EKON FAK RIJE	Croatia	Economics (290/344)	M23	0.346	Open Access Journal

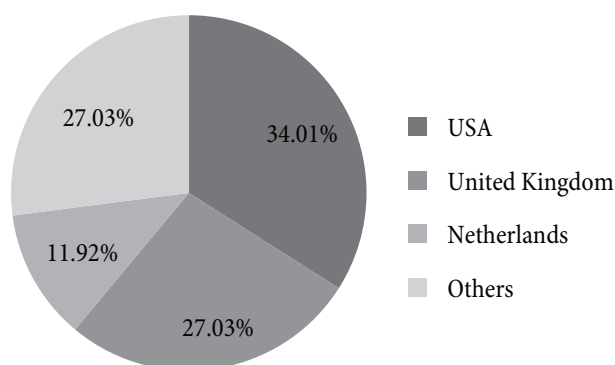
Note: The table uses abbreviated titles of the journals, respectively: Panoeconomicus, Economic Research – Ekonomika istraživanja and Zbornik radova Ekonomskog fakulteta u Rijeci: časopis za ekonomsku teoriju i praksu.

## Results and discussion

Based on the data from Figure 1, it can be said that the USA and the UK dominate the whole structure, participating with more than 60%. The third most dominant country is the Netherlands, whose journals have the most prominent role in the field of financial economics. Thus, from 344 journals listed in 2015, 117 come from the USA, 41 from the UK, 41 from the Netherlands and 93 from other countries. The following Figure shows the structure for each of the M20 categories.

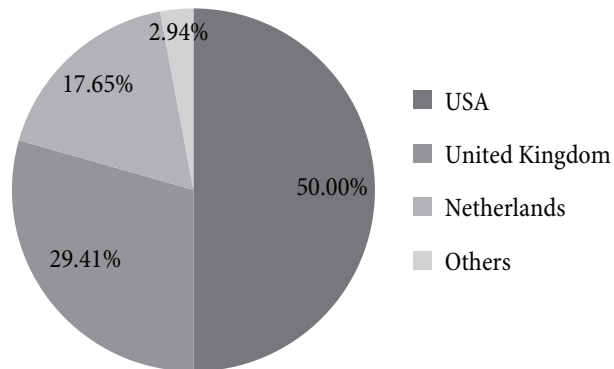
The highest degree of the concentration is present in the category M21a, which is evident based on the data given in Figure 2. The share of the American journals is 50% (17 journals), British journals participate with about 30% (10 journals), and 18% (6 journals) comes from the Netherlands; only one comes from New Zealand. Among the journals in M21 category, there is still a significant concentration of the journals from the USA and the UK (Figure 3) and their share is above  $\frac{3}{4}$ . This category has 69 journals: 29 American, 23 British, 13 from the Netherlands and only four from other countries. Among the journals in M22 category, there is a certain change in terms of their origin. The German journals enter the scene. Among 103 journals in this category, there are 36 from the USA, 34

**Figure 1: The market of scientific journals in the field of economics**



Source: Author.

Figure 2: The market of scientific journals in category M21a

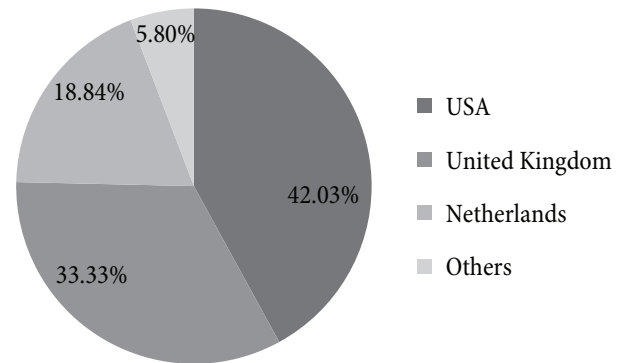


Source: Author.

from the UK, 15 from the Netherlands (Figure 4). The journals from these three countries make about 82% of the market. If we add 7 German journals, the rest of the countries participate with only 11 journals (three journals are from the Czech Republic).

In the category M23, certain tendencies of deconcentration become visible, i.e. this market includes the journals from 29 countries (Figure 5). Nevertheless, with the share of two thirds, the journals from the USA and the

Figure 3: The market of scientific journals in category M21



Source: Author.

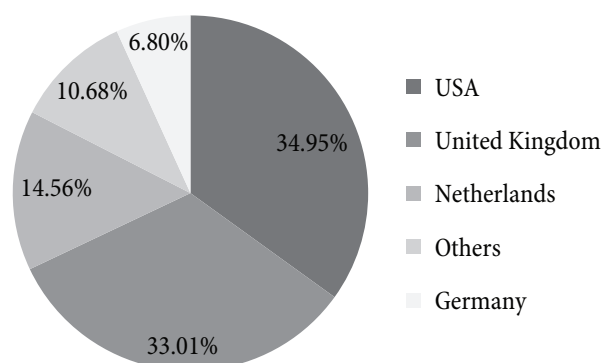
UK are still dominant. However, the share of the German journals is higher. There are 14 German journals on this list. Australia has a significant share with 10 journals as well as the Netherlands with 7. The rest of the countries participate with 46 journals. Only three journals come from Southeastern Europe – two from Croatia and one from Serbia. Their presence in the total structure is practically insignificant, but it is definitely significant for the authors from this region. It is interesting that, in addition to a large

Table 3: The selected economic journals available at ScienceDirect service

M21a	M21	M2	M23
Journal of Financial Economics	Journal of Environmental Economics and Management	European Journal of Political Economy	Economic Systems
Ecological Economics	Journal of Urban Economics	Review of Economic Dynamics	Economics Letters
Energy Economics	Journal of International Economics	Journal of Economic Theory	Japan and the World Economy
Journal of Monetary Economics	International Review of Economics and Finance	European Economic Review	International Review of Law and Economics
Journal of Health Economics	Journal of Development Economics	Journal of Choice Modelling	Journal of Mathematical Economics
	Emerging Markets Review		
	Journal of Econometrics	Journal of International Financial Markets, Institutions and Money	Mathematical Social Sciences
	International Journal of Forecasting	Regional Science and Urban Economics	Journal of Behavioral and Experimental Economics
	Agricultural Economics	Economic Modelling	Journal of Applied Economics
	Journal of Economic Behavior and Organization	Journal of Policy Modeling	Investigacion economica - Facultad de Economia de la Universidad Nacional Autonoma de Mexico
	Insurance: Mathematics and Economics	Journal of Empirical Finance	
	Journal of Comparative Economics	Labour Economics	
	Journal of Public Economics	International Journal of Industrial Organization	
	Journal of Banking and Finance	Structural Change and Economic Dynamics	
		Information Economics and Policy	
		Socio-Economic Planning Sciences	
		Research in Transportation Economics	
		Journal of Macroeconomics	

Source: [23].

Figure 4: The market of scientific journals in category M22

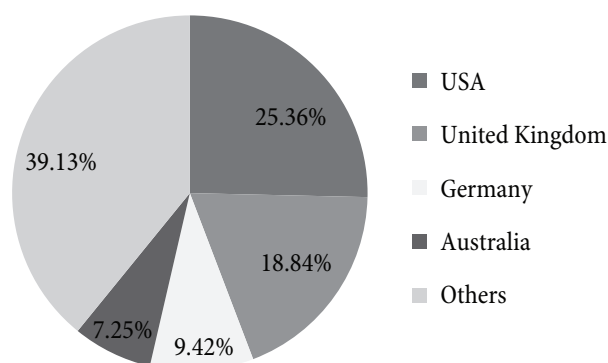


Source: Author.

number of authors who are recognized in wider research community, no journal from Slovenia is on this list.

The significance of the journals from Southeastern Europe for Serbian authors is obvious based on Table 4, which shows the number of articles published by Serbian authors in the last five years (the total number of articles published by a journal is given in the brackets; book reviews are not included). Figure 6 also presents the number of articles published by Serbian authors, and the ratio of articles written by Serbian authors in the total number

Figure 5: The market of scientific journals in category M23



Source: Author.

of published articles. The percentage is the highest in the domestic journal Panoeconomicus; the highest number of articles is published by Economic Research – *Ekonomski istraživanja*, because this journal is a part of Taylor & Francis Group and thus publishes more articles per year. The share of the journals from Croatia is at the similar level.

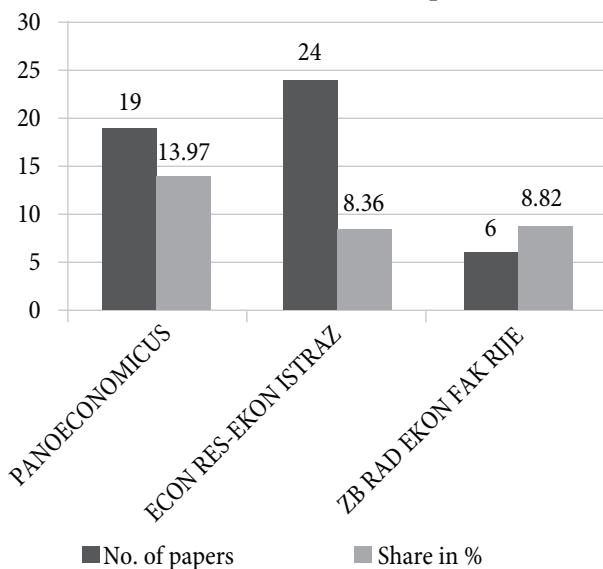
In order to show that it is a large number of articles and to emphasize the significance of the existence of the journals from this region, Figure 7 presents the numbers of articles published by Serbian authors in international

Table 4: The position of Serbian authors in the journals from Southeastern Europe

Journal	2011	2012	2013	2014	2015
PANOECONOMICUS	5 (29)	7 (27)	2 (27)	1 (26)	4 (27)
ECON RES - EKON ISTRAZ	2 (49)	6 (62)	2 (48)	10 (58)	4 (70)
ZB RAD EKON FAK RIJE	0 (18)	4 (11)	1 (11)	1 (15)	0 (13)

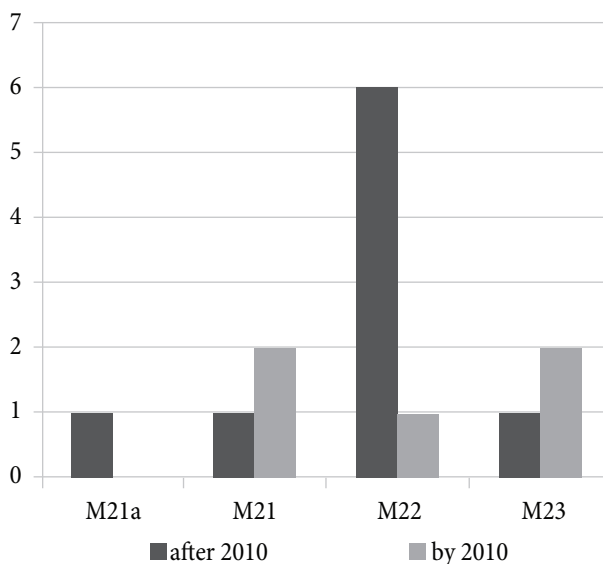
Source: Author.

Figure 6: The presence of Serbian authors in journals from Southeastern Europe



Source: Author.

Figure 7: The number of articles of Serbian authors available at ScienceDirect service



Source: Author.

journals of different categories which are available at ScienceDirect. It is evident that the number of articles published in these journals is rather small in comparison to the journals from Southeastern Europe. On the other hand, it is encouraging that there is an increase in the number of published articles in respect to the time before 2010, especially in M22 category. The authors from Serbia should increase their share by improving the quality of their articles. The huge problem is that the dominant role is held by the journals from the most developed countries which have the power to determine specificity of topics, publishing policy and reviewing process length, which may fluctuate depending on the recognition of the author. The key factor is to become recognizable on this market. The dominant position of those who have the most power is present in all spheres and entrance to those markets is something that must be achieved. The conditions for the election are very clear in scientific sense. Both the authors and the journals are striving to achieve higher impact factors. That is their mutual goal, so articles which have research potential and possibility for further exploiting and citing definitely have an advantage in successful overcoming of all obstacles which journals set before authors.

## Conclusion

The primary aim of this paper is to examine the level of presence of journals from the most developed countries in the field of economics. The results obtained through an adequate analysis have shown that on the market of scientific journals in the field of economics the dominant role is reserved for the journals from the USA and the UK. The domination of journals from these countries is becoming more emphasized as the category of a journal becomes higher. This confirms the basic hypothesis of this paper. In the category M23, there is a certain reduction in the concentration of the journals from these countries. Consequently, it is clear that there are elitist journals and authors who have a privilege to publish in them. This position enables the journals from the most developed countries to create publishing policy, specificity of topics and to further shape public thinking through their publications.

In addition, the goal of the study is to explore the role of Serbian authors on this market. In accordance with the hypothesis made in this study, it has been revealed that Serbian authors predominantly publish their articles in the journals from Serbia and Croatia. On the market of the journals listed in one of the most famous services, Serbian authors are not so prominent, but the number of published articles has increased after 2010. Based on this, it can be said that the interests for publishing Serbian authors were negligible because publishing was not a condition for academic titles. It takes time to enter those new markets. On the other hand, the question still remains about the interests of elite journals to accept Serbian authors and, above all, their articles which concern a small open economy such as the Serbian economy.

In authors from Serbia, conscience was awakened after the legislation had prescribed that the institutions of high education should put an emphasis on eminent journals and develop domestic ones that would have the potential to enter international markets. These two processes go side by side. The direction of the authors from Serbia should be set toward the hard core of economic sciences and toward clear goals of developing economic disciplines. Multidisciplinary and interdisciplinary approaches are a contemporary trend, and the links between economics and other scientific fields could be interesting to explore. Consequently, since the number of such journals is constantly growing, the possibilities for publishing articles on such topics are increasing, too.

## References

1. Babić, D., Kutlača, Đ., Živković, L., Štrbac, D., & Semenčenko, D. (2015). Evaluation of the quality of scientific performance of the selected countries of Southeast Europe. *Scientometrics*, *106*, 405-434.
2. Besselaar, P., & Sandstrom, U. (2015). *Does quantity make a difference? The importance of publishing many papers*. Retrieved from <https://arxiv.org/ftp/arxiv/papers/1510/1510.01871.pdf>.
3. Bleda, A. M., Thelwall, M., Kousha, K. & Aguillo, I. F. (2014). Do highly cited researchers successfully use the social web? *Scientometrics*, *101*, 337-356.
4. Bosquet, C., & Combes, P. P. (2013). Are academics who publish more also more cited? Individual determinants of publication and citation records. *Scientometrics*, *97*, 831-857.



5. Chou, C. P. (2013). *The SSCI syndrome in higher education: A local or global phenomenon*. Retrieved from <https://www.sensepublishers.com/media/1792-the-ssci-syndrome-in-higher-education.pdf>.
6. Garfield, E. (2005). *The agony and ecstasy – The history and meaning of the journal impact factor*. International Congress on Peer Review and Biomedical Publication, Chicago.
7. Harzing, A. W. (2013). A preliminary test of Google Scholar as a source for citation data: A longitudinal study of Nobel Prize winners. *Scientometrics*, 94, 1057-1075.
8. Hirsh, J. (2005). An index to quantify an individual's scientific research output. *Proceedings of the National Academy of Sciences*, 102, 16569–16572.
9. Hoeffel, C. (1998). Journal impact factors, *Allergy*, 53 (12), 12-25.
10. Ketzler, R., & Zimmermann, K. (2012). *A citation-analysis of economic research institutes*. Discussion Paper series IZA DP, no. 6780. University of Bonn.
11. Klavans, R., & Boyack, K. W. (2011). Using global mapping to create more accurate document-level maps of research fields. *Journal of the American Society for Information Science and Technology*, 62, 1-18.
12. Kobson. Retrieved from <http://www.kobson.nb.rs>.
13. Kutlača, Đ., Babić, D., Živković, L., & Štrbac, D. (2016). Analysis of quantitative and qualitative indicators of SEE countries scientific output. *Scientometrics*, 102, 247-265.
14. Lariviere, V., Haustein, S., & Mongeon, P. (2015). The oligopoly of academic publishers in digital era, *PlosOne* 10. Retrieved from <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0127502>.
15. Lariviere, V., Lozano, G., A., & Gingras, Y. (2014). Are elite journals declining? *Journal of the Association for Information Science and Technology*, 65, 649-655.
16. Monbiot, G. (2011). *Academic publishers make Murdoch look like a socialist*. Retrieved from <https://www.theguardian.com/commentisfree/2011/aug/29/academic-publishers-murdoch-socialist>.
17. Matutinović, S., F. (2014). *Naučne informacije u Srbiji-Protok, dostupnost, vrednovanje*. Retrieved from [ubsm.bg.ac.rs/document/20/](http://ubsm.bg.ac.rs/document/20/).
18. Matutinović, F., S. (2009). *Google Scholar kao izvor naučnih informacija*. Glasnik Narodne biblioteke Srbije, XI, 53-62.
19. Nikolić, N. (2010). Značaj i metodologija publikovanja radova u međunarodnim naučnim časopisima. *Vojno delo*, proleće, 9-24.
20. Ortinau, D. (2011). Writing and publishing important scientific articles: A reviewer's perspective. *Journal of Business Research*, 64, 150-156.
21. Politika. Retrieved from <http://www.politika.rs/scc/clanak/349723/Instituti-SANU-protiv-amerikanizacije-srpske-nauke>.
22. Price, D. J. (1963). *Little science, big science*. New York: Columbia University Press.
23. ScienceDirect. Retrieved from <http://www.sciencedirect.com/>.
24. Sotudeh, H., & Horri, A. (2009). Countries positioning in open access journals system: An investigation of citation distribution patterns. *Scientometrics*, 81, 7-31.
25. Suša, B. (1999). Vrednovanje naučnog rada objektivnim pokazateljima. *Vojno delo*, 51, 57-72.
26. Thelwall, M. (2008). Bibliometrics to webometrics. *Journal of Information Science*, 34, 605-621.
27. Yasgul, Y. S., & Guris, B. (2015). Causality between research output in the field of biotechnology and economic growth in Turkey. *Quality and Quantity*, 50, 1715-1726.



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