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Domestic publication or international one? The influence of government on scientists' choice: China and Kazakhstan

Feng Wu[1], N.T. Shyngyssova[2], A.I. Skripnikova[2]

[1]Xi'an Jiaotong University, Shaanxi, China
[2]al-Farabi Kazakh National University, Almaty, Kazakhstan

*(E-mail: wufeng8@xjtu.edu.cn, nazgul.shyngysova@kaznu.kz, *sai.kz@mail.ru)*

Abstract. The article examines the results of state stimulation and financial support of scientists' publications in international journals in China and Kazakhstan. The study used data from the following databases: for China - US SCI and EI Compendex, for Kazakhstan - Scopus and Web of Science. As for domestic publications, for China - the selection standard is based on CNKI (the most complete and largest Chinese database); for Kazakhstan, such an analysis was not conducted, since the country does not have a single electronic database of domestic scientific publications. Certainly, against the backdrop of economic integration, as well as the globalization of science and technology, academic research in any country cannot be isolated from the global environment. International publication is a prerequisite for scientific development. A certain percentage of productivity of international publications is a normal need for scientific exchanges. On the other hand, according to the results of the study, the number of "domestic" publications in both countries has begun to decrease, due to the fact that leading scientists strive to publish their articles in English in rating publications, not in domestic scientific journals. The paper provides proposals for improving the situation.

Keywords: evaluation policy, domestic publication, international publication, publication productivity, structure of publication productivity.

Introduction

By the early 1990s, Chinese government began to implement the evaluation policy which encouraging international publication (publication in English) and also took 2 indexing tools as the standard to evaluating the academic performance of scholars as well as institutions. One is SCI, which is published by Institute for Scientific Information (ISI), the other is EI Compendex published by Engineering Village [1].

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However, in November 2015, *Several Opinions on Accurately Grasping the Role of Sci-tech Journals in Academic Evaluation* was jointly issued by China Association for Science and Technology, Ministry of Education and Administration of Press, Publication, Radio, Film and Television. It was announced that the reforms would focus on the evaluation of SCI and EI English theses and turned to support the policies that prioritize productivity in domestic journals.

It stipulates that excellent results of scientific research funded by various types of public funds shall be published in domestic journals prior. The government should explore to establish management mechanisms for scientific research institutions and research funding agencies to publish important core scientific research results in domestic scientific journals. Meanwhile the mechanisms will be regard as requirements to check and evaluate project conclusions. The introduction of this policy has caused great controversy in the academic community. In that way, why does mainland China have to adjust its evaluation policy for science and technology theses? This is mainly due to the pressure of the unbalanced productivity structure of scientific theses.

The situation in Kazakhstan is similar to China. In order to defend a PhD dissertation, a publication in the Scopus database is a prerequisite. In addition, publications in journals included in the Scopus database are required for reports on projects for grant funding of the Ministry of Education and Science of the Republic of Kazakhstan. Scientific journals in Kazakh language are not included in this database. As of October 16, 2024, only six journals from Kazakhstan are indexed in Scopus: News of the National Academy of Sciences of the Republic of Kazakhstan - Series of Geology and Technical Sciences, Eurasian Journal of Mathematical and Computer Applications (L.N. Gumilyov ENU), Eurasian Mathematical Journal (ENU), Eurasian Chemico-Technological Journal / (the al-Farabi Kazakh National University), Eurasian Physical Technical Journal (E.A. Buketov Karaganda State University) and Bulletin of The University of Karaganda – Chemistry.

This is quite small, and, as you can see, not all scientific fields are represented in the above-mentioned journals. There are no scientific journals in the field of "Journalism". Therefore, scientists have a choice: to publish articles in Russian or English, but in any case, only in foreign international journals. Most prefer publications in English, as this provides additional growth of readers due to the international audience.

The published productivity structure in this study refers to the proportion of domestic and international publications in total academic publication.

In the context of globalization in academia, there are two ways for scholars to publish scientific articles [2]. One is published in native language in domestic journals and the scope of influence is mainly confined to domestic theses. It was called domestic productivity. The other is using international Language (usually in English) to published in international academic journals which easily shared by scholars from all over the world and has extensive influence in the world. It is called international publication productivity [3]. Nowadays, scholars of non-English-speaking countries are generally faced with the choice of publication, that is, the issue of published in English or non-English, as well as the issue of domestic publication or international publication. At the same time, the government's academic evaluation policy also faces a difficult problem that whether to support the priority of English publication (international publication),

or to support the orientation of evaluation of mother tongue publication (domestic publication)? What are the impacts and consequences of the orientation of government's evaluation policy on academic productivity structure?

Most universities and research institutes in mainland China are state-owned institutions. The government's financial investment accounts for the vast majority of its research investment. Therefore, the orientation of government evaluation policies has an important influence on the structure of the science and technology publication productivity. Since the implementation of the reform and opening up policy in 1978, mainland China has always adhered to the opening up of scientific research. In the early 1990s, the proportion of China's international publication productivity was extremely low. To integrate into the international scientific and technological community and expand the international influence of academic achievements, the Chinese government began to implement policies that encourage productivity of international publication, and gave priority to English theses in the assessment. However, there was also an unexpected result that the productivity of theses published in Chinese journals began to shrink after the implementation of the policies for 21 years. In 2015, the relevant departments adjusted the evaluation orientation and turned to support the theses published in domestic journals. As the largest non-English-speaking country, the experience of the reform of China's research policy has provided a typical sample for this study.

The position of the Kazakhstani government follows from the following facts: 1. The Bolashak International Scholarship for Studying Abroad was established in 1993. One of the requirements for an applicant is knowledge of a foreign language. In order to receive funding for a scientific internship, an applicant must have scientific results (articles or reviews indexed in the international databases Web of Science, Scopus). 2. A foreign language exam (in most cases, English) is a condition for admission to master's and doctoral programs. 3. Until 2023, the national university of the al-Farabi Kazakh National University, when filling out the indicative plan (KPI), prioritized international publications in top-rated journals more than in domestic journals.

The purpose of this paper is to (a) examine the changes in the productivity structure of published scientific theses; (b) discuss the results of changes in publication productivity structure.

Literature Review

The productivity of scientific theses is an important indicator for evaluating the academic performance of universities and research institutes. In the context of globalization, there are two orientations for the government's evaluation policy for scientific theses.

The first policy orientation is to encourage international publication productivity (published in English) which emphasizing the maximization of the dissemination of scientific and technological achievements, and attaching importance of theses' international sharing as well as international influence. Therefore, the productivity of scholars' international theses is used as a main basis for evaluating their performance [4]. Although this kind of policy can stimulate a country's international published productivity quantity, it may also strengthen language

bias, database bias and location bias, which eventually results in the imbalance of academic productivity structure.

Language bias means supporting English publishing meanwhile having prejudices to non-English publication (Liang, Rousseau & Zhong, 2013; Egger, 1998). For scholars, if they are not proficient in using English, they will be at a disadvantage in academic evaluation [5]. An empirical study by Man, Weinkauf, Tsang & Sin [6] found that scholars' proficiency in English has a significant impact on their academic productivity. Thus, scholars from English-speaking countries and Western European countries with high levels of English proficiency have a clear competitive advantage over those from other non-English-speaking countries. T. Tregenza 2002's research "Gender bias in the refereeing process…" also confirms that submissions of native English speaking countries were more likely to be accepted and published.

Database bias means preferential include the English journals and have prejudices to non-English journal articles. English as the language which closest to academic lingua franca [7] is easy for the international academic community to disseminate and become the preferred language for several large database platforms. Therefore, the database is pleased to include English-language journals and underestimates the quality of non-English journals. Van Leeuwen [8] pointed out that the United States and the United Kingdom define their national nature as international thus their English journals are more likely to enter SCI and other databases. However, the theses published by scholars from German, French, China, Kazakhstan, and other non-English speaking countries in their own languages at a disadvantage.

Location bias, that is, emphasized the importance of publication productivity in international journals, but biased publication of domestic journals. It is a common phenomenon to place emphasis on the publication of English papers in foreign journals but disregard domestic theses in own language in mainland China, Japan, Korea, Hong Kong, Taiwan and other non-English speaking countries and regions [9]. However, for the country, encouraging the international publication of scientific theses has resulted in the loss of technology assets. The publication of scientific and technological productivity is an important intellectual capital. A large number of achievements are published international, which means the abandonment of the right to dissemination and copyright. It is not only leads to the loss of scientific and technological information resources, but also results in the loss of scientific wealth of the nation [10]. In non-English-speaking countries, a large number of academic researchers are published in foreign English journals which forming the North-South gaps in scientific publications, which are detrimental to developed countries [11].

The other policy orientation is to encourage productivity of domestic publication (own language theses). It is emphasizing the copyright value of domestic publication. The own language articles are facilitating domestic readers meanwhile directly promoting the development of domestic economic and society. Therefore, the evaluation needs to pay attention to domestic productivity [1]. Some scholars have appealed that theses published in non-English journals or SCI covered journals are also in great value [10]. The bibliometric and citation-based measurements used in the existing evaluations are based on English journals which ignoring the productivity of non-English publications. As a result, these rankings underestimate the academic performance of scholars and institutions from non-English speaking countries. It was

a severe improper evaluation [12]. Of course, some studies have shown that theses published in domestic journals has lower citations, which is not conducive to international communication and sharing or expanding the international influence of academic achievements [13].

In summary, the government's evaluation policy has a profound effect on the productivity structure of scientific theses publication. Supporting the evaluation guidance of English publication or international publication will intensify language bias, database bias and location bias, which also increase the proportion of international publication. On the contrary, supporting the evaluation orientation of own language publication will stimulate domestic productivity and improve the proportion of domestic productivity. However, there lack specific empirical research to prove that what changes will occur in the productivity structure of a country's scientific theses under the background of specific government evaluation policies.

Research Questions

Many factors influence scientific and technological theses publication structure. All else being equal, this study attempts to answer the questions: what has changed in the publication productivity structure in science and technology sector when the government implemented an evaluation policy that supports international publication? It contains the following 3 questions:

RQ1: what has changed in the number of domestic and international publication productivity under the background of the international publication encouraging policy?

RQ2: what has changed in the rate of growth of domestic and international publication productivity under the background of the international publication encouraging policy?

RQ3: what has changed in the proportion of international and domestic publication productivity in total number of publication under the background of the international publication encouraging policy?

Research Methods

Data Collection

There are several forms of academic productivity (papers, monographs, etc.). This study only considers the productivity of theses published in science and technology field in China and Kazakhstan. There are a large number of domestic and foreign journals which has uneven quality. Besides, there are many paths for scholars to publish international theses.

In Kazakhstan, in connection with this, the number of campaigns offering to translate an article into English and publish it in international journals for money has increased significantly.

Kazakhstan has not had a subscription to Scopus since 2013. This partly provoked the problem with so-called "predatory" journals. Thanks to the active work of the Ministry of Education, since October 2017 all Kazakhstani scientists have had access to Scopus [14].

To simplify the research, the international theses for the present study are only selected for China – from the two representative databases – US SCI and EI Compendex which are the most influential databases: for Kazakhstan – Scopus and Web of Science. As for domestic theses, for China – the selection standard is based on CNKI (the most complete and largest Chinese

database in China); for Kazakhstan - there is no single database of scientific publications in the Republic.

China.

Definition of Index & Data Retrieval and Calculation

International publication productivity, IPP.

The international thesis in this article refer to high-quality English scientific theses published by scholars in mainland China in international journals, and are collected by international academically recognized databases. The first one is SCI hosted by ISI. The rule for Chinese thesis searching is all these containing region field of *People's Republic of China.* Secondly, the searching rule on EI Compandex is identical to that of SCI. At the same time, only a few theses may be included both by SCI and EI. This part of the papers accounts for about 5% of the total international publication productivity [1]. To avoid duplication, this part of data should be excluded. Therefore, the calculation of international publication productivity (IPP) in Chinese science and technology field can be calculated as:

$$\mathbf{IPP = (SCI\ thesis + EI\ thesis) * (100\%-5\%)}$$

Domestic publication productivity, DPP.

In this article domestic thesis refer to high quality papers published by Chinese mainland scholars in domestic academic journals. The CNKI was selected as the retrieval platform and the scope was limited to the science and engineering sub-database data as well as the index of core journals published by Peking University Library which included high quality thesis. In addition, a small percentage of English journals in mainland China and only a few high quality Chinese journals (with English abstracts) have been included in SCI or EI. These journals (about 5% in total) were also included in CNKI. In order to avoid duplication, this study excludes those data when calculating domestic publication productivity (DPP).

$$\mathbf{DPP = Domestic\ Core\ thesis_{cnki} - (SCI_{cnki} + E_{cnki}) * (100\% - 5\%)}$$

Total publication productivity, TPP.

The total publication productivity in this article refers to the sum of IPP and DPP of each year in mainland China.

$$\mathbf{TPP = IPP + DPP}$$

% of IPP is the proportion of IPP to the total number of productivity.

% of DPP is the proportion of DPP to the total number of productivity.

Kazakhstan.

According to InCites, in 2023, Kazakhstani authors published 4451 publications indexed in Web of Science, of which 3767 (84.6%) were articles and 278 (6.2%) were reviews. The number of articles and reviews in journals from the main Web of Science indexes (Science Citation Index Expanded, Social Science Citation Index, Arts and Humanities Citation Index) was 2626, which is 4.0% and 12% higher than the figures for 2022 and 2021, respectively.

According to SciVal, in 2023, Kazakhstani authors published 7,237 publications indexed in Scopus, including 5,830 (80.5%) articles and reviews. Compared with 2022, the growth in the number of Kazakhstani articles and reviews in Scopus was 9.4%, and compared with 2021 - 21%.

Despite some progress, the data obtained generally indicate a slowdown in the growth rate of quantitative and qualitative indicators of Kazakhstani science in the last 1-2 years [15].

The number of Kazakhstani journals indexed by the Kazakhstan Citation Database in 2020 (last update) was 184 scientific journals [16]. It is worth emphasizing that, for example, Bulletins of various universities can be repeated in the database due to different series: "Chemical", "Philological", "Journalism Series", etc. This database contains only the names of journals and the ability to search for articles by author. It does not contain data on the total number of published articles, the number of domestic/foreign authors, or the language of publication.

There are no statistics on the total number of articles published by Kazakhstani scientists in domestic publications. Of course, some scientific journals maintain their own archive, but, firstly: not all of them, secondly: they started maintaining a digital archive in different years, thirdly: not all journals have a "paper" archive in libraries that has been digitized. The number of articles in different issues of the same journal is not constant - hence the impossibility of calculating even an approximate number of published articles over several years of existence of a particular scientific journal.

Changes in the Number of IPP and DPP

From 1994 to 2014, the Chinese government implemented an evaluation policy that encouraged international publication productivity (in English).

From 1994 to 2014, IPP increased by 26.1 times while DPP only increased by 1.6 times during the same period. During the period from 1994 to 2014, the evolution of DPP and IPP in mainland China can be divided into two phases. In the first stage from 1994 to 2009, both DPP and IPP were gradually increasing. The number of DPP was greater than the IPP, but the gap between those two showed a trend of shrinking. In the second stage from 2010 to 2014, IPP continued to grow rapidly while DPP showed a declining trend. Not only IPP was higher than DPP, but the gap between them was continuously expanding. In other words, under the background of the government's implementation of an evaluation policy that encourages international publication, significant changes have taken place in DPP and IPP in mainland China. That is, take 2010 as a turning point, the DPP in Chinese journals has continued to decline while IPP in foreign journals has continued to increase.

Changes in increase rate of DPP and IPP

Under the background of implementation of the policy of encouraging IPP, the increase rate of IPP in mainland China is higher than that of DPP with the exception of 1999. From 1994 to 2014 (Figure 1), the average increase rate of IPP was 18.5% while the increase rate of DPP was only 3.1%. The former was 6.0 times that of the latter. In particular, it should be pointed out that during the 21 years there were totally 7 years of negative increase in DPP. Since 2010, the trend of negative increase in DPP has become more apparent. It can be predicted that if the

government do not adjust the evaluation policy, IPP will continue to maintain an increase rate of about 10% while DPP will continue to show negative increase.

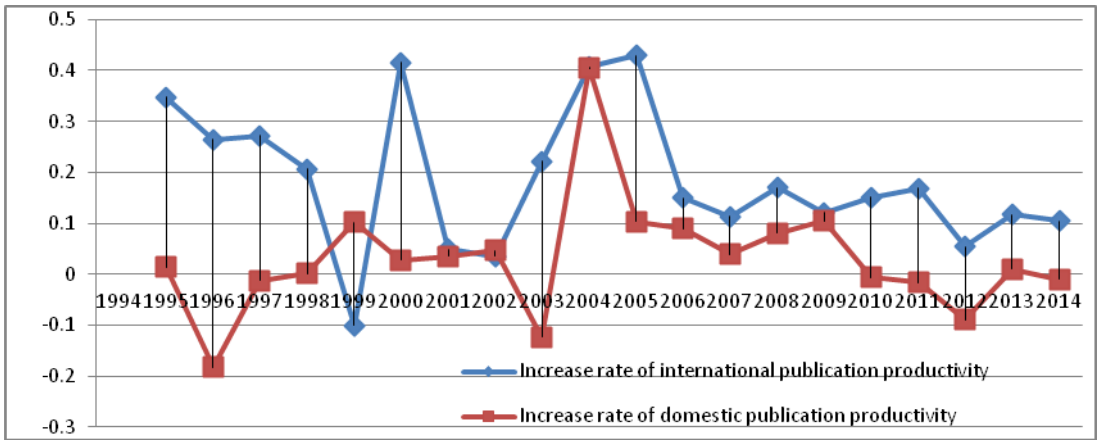

Figure 1. Increase rate of international and domestic publication productivity (1994-2014)

Changes in Proportion of DPP and IPP

From 1994 to 2014, China maintained the rapid growth of the total productivity of thesis, but the contribution of different types of publication productivity was not the same. From 1994 to 2009, the total productivity in Mainland China was dominated by DPP (more than 50%). The TPP of Chinese scientific and technical thesis was 200,828 in 1994. Among which DPP accounted for 89.3% and IPP only accounted for 10.7%. However, take 2010 as the inflection point, it is the first time the proportion of IPP in mainland China (53.0%) exceeded the proportion of DPP (47.0%). Among the TPP in mainland China, the proportion of IPP reached 65.7% while the proportion of DPP was only 34.3% by 2004. In other words, in the context of encouraging IPP, the structure of the productivity of thesis published in Mainland China has undergone a marked change that DPP dominated the structure before 2009 but after 2010 IPP become the dominance.

Discussion and Conclusions

Since the early 1990s, the Chinese mainland government has adopted policies that encourage international publication. Its original intention is due to the low proportion of IPP. In order to make the backward Chinese scientific research catch up with the pace of the world and integrate into Western system, Chinese government took the opening-up policies to enhance the overall level and enlarge the international influence of thesis productivity. This article selects data from the productivity of scientific and technological thesis published in mainland China. The study found that the policy of encouraging IPP has triggered major changes in the structure of TPP in mainland China. However, there are two opposite views in the academia, which has caused fierce debates for the interpretation of this structural change.

The government of Kazakhstan and the management of many universities support and stimulate (through prizes, awards, opportunities) international publications among domestic scientists. Publications in local journals, in particular those recommended by the Committee for Control of Education and Science (CCES), which are necessary for obtaining scientific titles and generating reports on scientific projects, are also supported (to a less extent).

Opposes Position – Structural Imbalance and its Harm of Publication Productivity

One position holds opposing view that the government's policy of encouraging IPP results in an imbalanced structure which is very unfavorable to the country's overall interests as well as development strategies. It should be corrected in the future [17]. Some scholars are concerned that the implementation of this evaluation policy will bring a series of severe problems, mainly in the following three aspects.

First of all, excessive IPP does not meet the goals of government-funded projects. Due to the government's evaluation policy guidance, the preference of Chinese mainland researchers has undergone major changes which forming a preference for international publication while despising domestic publication. Some of them even appears to extreme phenomena such as "don't publish in China" or "dismissing publish domestically" or even "blacklisting domestic journals" [18]. IPP is in a dominant position in evaluation activities like reward evaluation and promotion of titles in some universities and research institutes. Whereas, compared with IPP, DPP is in a marginalized state threatening the status of Chinese scientific thesis to some extent [19]. However, the studies of Chinese mainland scholars are usually funded by the government. The purpose of their research is to serve domestic economic and social development. However, theses published in foreign journals are usually difficult to read and share for domestic readers. So, it doesn't meet the goal of the government's funding [18]. Liu (2005) pointed out that the result of knowledge innovation is national resources. It should be first published in excellent domestic journals to safeguard intellectual property rights. In addition, some scholars have pointed out that the importance of DPP cannot be ignored in the evaluation of academic publication productivity [10]. In December 2015, Chinese scientist Tu Yu received the Nobel Prize in Physiology or Medicine. It is worth noting that there are only a few international theses in English published by her. The vast majority of scientific productivities are published in Chinese. Therefore, the quality of DPP cannot be ignored.

Secondly, excessive IPP has led to the crisis of the manuscript source of domestic journals. There are more than 2,000 scientific journals in mainland China. The vast majorities of them are published in Chinese and are aimed at the domestic reader market. Since the mid-1990s, due to the rapid increase of IPP there has been a "draft" (a lack of high-quality manuscripts) in domestic scientific journals which has aroused the worries of scientific and technological journal circles. *China Physics Express* is the leading journal in China's domestic physics community. However, as early as 1994, the journal suffered a severe manuscript crisis. The outflow of high-quality manuscripts has become a trend that domestic scientific journals can hardly resist [20]. The latest survey research in 2015 presented that in terms of submission preferences, 67.59% of mainland Chinese authors chose foreign journals. Meanwhile, 16.39% chose domestic Chinese journals and only 0.3% chose domestic English journals [21]. This statistical result also indicated that since 2010 the number of domestic scientific theses in China has started to grow negatively, of which, it dropped by 10% only in 2012. Some researchers pointed out that the issue of manuscript source has become the biggest difficulty of domestic

scientific and technical journals [22]. Even the top journals hosted by the Chinese Academy of Sciences *China Science* and *Science Bulletin* have also been "victimized" [23]. As a big country of science and technology, China cannot always take a "free ride" in the international scientific and technological dissertation dissemination system. It cannot expect to "share" the science and technology dissemination platform of developed countries forever. It is the country's strategic needs to foster and develop local scientific and technological journals [24].

Thirdly, the publication of international scientific thesis has brought serious economic losses. Scientific and technological thesis information resources are a country's valuable intellectual wealth. Many important academic and scientific research achievements were first published in foreign journals so that Chinese mainland science or research scholars must not only pay for translation fees and publication fees, but also need to spend money to purchase the right to use foreign language databases [25]. Some scholars have studied the economic losses of theses published internationally by Chinese mainland scholars and also calculated the losses by economic estimation models. The outflow loss of a single thesis is 3,348 yuan (including translation fees, publication fees, and English database usage fees. $518.6052) [26]. Since these internationally published theses are usually funded by Chinese government so that these economic losses can be regarded as the loss of state-owned assets.

Supportive position: Should continue to support the policy of IPP

Those who hold opposing views believe that the increase in IPP is worth celebrating. Stimulated by the government's encouragement policy the IPP of the Chinese mainland has made great progress. The proportion of international theses published in the academic publication has been continuously increasing. This is a gratifying phenomenon. Hence we don't need to worry about that and should continue to encourage international publication policy [27]. The relevant views mainly focus on three aspects.

First of all, the policy of encouraging international publication has greatly improved China's status in the global scientific and technological community and made great progress. As a non-English-speaking country, Chinese mainland scholars who have overcome language barriers published more scientific theses in English journals than domestic ones. Not only in terms of quantity, have they also made tremendous progress in quality.

On December 12, 2015, an ESI-based search showed that China's total number of documents indexed by the *web of science* database reached 1,626,786, and is second only to the United State; the total number of citations reached 13,481,446 and ranking fourth in the world next to The United States, Germany, and the United Kingdom; the number of top theses was 15,447 and ranking fourth in the world. From 1994 to 2014, it was not only the period when China's IPP soared, but also the period during which China's science and technology and economic development made major progress. It proves the rationality of encouraging IPP policies. Therefore, the evaluation policy of the Chinese mainland government is successful and the government should continue to support the IPP [27].

Secondly, the government should not use policies to impose restrictions on the publication of scholars' dissertations and interfere with the scholars' liberty of publication. According to the constitution and copyright law of Mainland China, authors of thesis enjoy the freedom of exercising the right of publication. China's mainland has implemented the strategy of reform and opening up, then became an important member of the WTO. The country must gradually integrate into the international community as well as participate in international competition.

International publication of scientific theses is precisely to adapt to this trend so that high-quality scientific theses publication is reasonable [24]. The theses published by Chinese scholars in foreign scientific journals are all marked with the names of intellectual property rights countries (China) and research institutions. This is an important path to highlight China's scientific research strength and expand its academic influence [27]. At the same time, the fundamental purpose of writing academic theses by science and technology scholars is to obtain the maximum range of communication. Scientific knowledge should also be shared by all human beings. Academic achievements are common wealth of all countries in the world regardless of which country's journals. Chinese scholars who publish international thesis are not only beneficial to foreign scholars, but also help themselves to further enhance their technological innovation capabilities. In other words, international publication of scientific thesis is not only justified, but also is the freedom of scholars. The government should not interfere with the scholars' freedom of expression. The publication of academic thesis is the author's private rights. Under the premise of not violating the national constitution and related laws, the author has the freedom and right to dispose as well as no one or the organization has the right to interfere. The use of government policies to force innovation achievements to be first published in our country is an obstacle to promoting international academic exchanges and should not be supported [28].

Thirdly, support for international publication is conducive to enhancing the level of Chinese journals in mainland China. Sci-tech periodicals constructed by developed countries are platforms shared by all countries. Scholars in mainland China can use this platform to test and display their scientific research achievements [27]. However, the pressure of international publication productivity can in turn encourage domestic journals to upgrade the quality of their publications and build brand journals. In addition, the improvement of the academic reputation of Chinese scholars also facilitates the attraction of internationally renowned reviewing experts or editorial committees for Chinese-sponsored scientific journals, strives for international manuscript sources, wins international readership, and creates favorable conditions [28].

The situation in Kazakhstan is similar: there are a number of scientists who advocate the abolition of strict requirements for publications in international indexed journals; they demand recognition of domestic articles published in Kazakh in domestic scientific journals. Another group of scientists, on the contrary, believes that in the era of globalization and the widespread use of the English language, it is worth publishing the results of the research in world journals with a large number of readers.

This study believes that the understanding of the changes in the structure of publication needs to be analyzed from two perspectives. On one hand, English-speaking countries such as the United States and Britain are leading the global scientific and technological dissertation publication system currently. They have built up English-centered scientific and technological achievements communication system by means of pre-developed rules and tools for the evaluation of international scientific and technical thesis, as well as access to powerful sci-tech periodical channels. In this system, the flow of theses is not equivalence. In general, it flows from non-English-speaking countries to English-speaking countries which resulting in polarization of international thesis. Non-English-speaking countries are in awkward position in the dissemination system [11]. On the other hand, under the background of economic integration as well as science and technology globalization, the academic study of any country or any scholars cannot be isolated from the global technological environment. International

publication is a prerequisite for scientific development. A certain percentage of international publication productivity is the normal need for scientific exchanges. Thus, it cannot be resisted and there is no need to oppose. Generally speaking, we do not oppose a moderate amount of IPP. However, this is a compromise solution to find a balance between IPP and DPP and then achieve a balanced development of both.

In today's world, the integration of science and technology as well as the sharing of information have become consensus among all sectors. A country's research cannot be independent of the global science and technology system.

When comparing the situation in China and Kazakhstan, we can conclude that in our country it is necessary to introduce accounting or create a single abstract database of all domestic scientific journals with ratings. There is also the possibility of creating a personal profile for each Kazakhstani scientist, where information will be posted specifically on home publications.

In summary, the purpose of this study is not to provide a clear conclusion, but to promote multi-angle understanding and dialogue. The productivity structure of a country's scientific thesis is a very complex phenomenon that requires multi-perspective analysis. On one hand, the proportion of a country's international publication of output has gradually increased in the context of globalization. This is, to some extent, a normal phenomenon of global scientific and technological integration and increasing international scientific and technological exchanges. On the other hand, the current international scientific and technological dissertation exchange is an English-centered inequality system. For a large scientific research country, it cannot fully rely on other countries' scientific thesis dissemination channels. There must be certain measures to maintain a complete scientific research system and protect the domestic publication productivity rather than completely abandon domestic productivity.

Finally, this study has limitations. In order to simplify the study, this paper only considers the role of the evaluation policy in influencing a country's productivity structure. However, in fact, there are many factors affecting the productivity structure of a country's scientific thesis needs further exploration such as economic growth, investment, and the number of researchers.

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Фэнг Ву[1], Н.Т. Шынгысова[2], А.И. Скрипникова[2]

[1]Сиань Цзяотонг университеті, Шэньси, Қытай

[2]Аль-Фараби атындығы Қазақ ұлттық университеті, Алматы, Қазақстан

Отандық әлде халықаралық басылым?
Ғалымдардың таңдауына мемлекеттің әсері: Қытай және Қазақстан

Аңдатпа. Мақалада Қытай мен Қазақстандағы халықаралық басылымдарда ғалымдардың жарияланымдарын мемлекеттік ынталандыру мен қаржылық қолдаудың нәтижелері қарастырылады. Зерттеу барысында келесі дерекқорлардың мәліметтері пайдаланылды: Қытай үшін – US SCI және EI Compendex, Қазақстан үшін – Scopus және Web of Science. Қытай үшін іріктеу стандарты CNKI (ең ірі әрі толық қытай деректер базасы) негізінде жасалды. Қазақстан үшін мұндай талдау жүргізілген жоқ, өйткені елімізде отандық ғылыми жарияланымдардың бірыңғай электрондық базасы жоқ. Әрине, экономикалық интеграция, сондай-ақ ғылым мен техниканың жаһандануы аясында кез келген елдегі академиялық зерттеулерді жаһандық ортадан оқшаулау мүмкін емес. Халықаралық жарияланымдар ғылыми дамудың алғышарты. Халықаралық жарияланымдар белсенділігінің белгілі бір пайызы ғылыми алмасулардағы қажеттіліктен туындайды. Зерттеу нәтижелері көрсеткендей, жетекші ғалымдар мақалаларын отандық ғылыми журналдарда емес, халықаралық рейтингтік басылымдарда ағылшын тілінде жариялауға басымдық береді. Мақалада осы саладағы өзекті мәселелер анықталып, авторлық тұжырымдар ұсынылды.

Түйін сөздер: бағалау саясаты, отандық басылым, халықаралық басылым, жарияланым белсенділігі, жарияланым белсенділігінің құрылымы.

Фэнг Ву[1], Н.Т. Шынгысова[2], А.И. Скрипникова[2]

[1]Сианьский университет Цзяотун, Шэньси, Китай

[2]Казахский национальный университет им. аль-Фараби, Алматы, Казахстан

Отечественная публикация или международная?
Влияние государства на выбор ученых: Китай и Казахстан

Аннотация. В статье рассматриваются результаты государственного стимулирования и финансовой поддержки публикаций ученых в международных изданиях в Китае и в Казахстане. В рамках исследования использовались данные из следующих баз: для Китая – US SCI и EI

Compendex, для Казахстана – Scopus и Web of Science. Что касается отечественных публикаций, то для Китая – стандарт отбора основан на CNKI (наиболее полная и крупнейшая китайская база данных); для Казахстана подобный анализ не был проведен, так как в стране нет единой электронной базы отечественных научных публикаций. Безусловно, на фоне экономической интеграции, а также глобализации науки и технологий академические исследования любой страны не могут быть изолированы от глобальной среды. Международная публикация является предпосылкой научного развития. Определенный процент продуктивности международных публикаций является нормальной потребностью в научных обменах. С другой стороны, согласно результатам исследования, число «домашних» публикаций в обоих странах стало сокращаться, вследствие того, что ведущие ученые стремятся опубликовать свои статьи на английском языке в рейтинговых изданиях, а не в отечественных научных журналах. В работе приведены предложения по улучшению ситуации.

Ключевые слова: политика оценки, отечественное издание, международное издание, публикационная продуктивность, структура публикационной продуктивности.

Information about author:

Wu Feng – Full professor of School of Journalism and New Media at Xi'an Jiaotong University in Xi'an, Shaanxi, P.R. China.

***Shyngyssova N.T.* –** Doctor of philological sciences, Chair of Printing and Electronic Media, al-Farabi Kazakh National University, Almaty, Kazakhstan.

***Skripnikova A.I.* –** Corresponding author, PhD, Senior lecturer, UNESCO Chair in Journalism and Communication, Al-Farabi Kazakh National University, Almaty, Kazakhstan.

***Ву Фэнг* –** Журналистика және жаңа медиа мектебінің профессоры, Сиань Цзяотонг университеті, Шэньси, Қытай.

***Шыңғысова Н.Т.* –** филология ғылымдарының докторы, Баспасөз және электронды БАҚ кафедрасы, әл-Фараби атындағы Қазақ ұлттық университеті, Алматы, Қазақстан.

***Скрипникова А.И.* –** корреспондент-автор, PhD, ЮНЕСКО-ның журналистика және коммуникация кафедрасының аға оқытушысы. Әл-Фараби атындағы Қазақ ұлттық университеті, Алматы, Қазақстан.

***Ву Фэнг* –** профессор Школы журналистики и новых медиа, Сианьский университет Цзяотун, Шэньси, Китай.

Шынгысова Н.Т. – доктор филологических наук, кафедра печати и электронных СМИ, Казахский национальный университет им. аль-Фараби, Алматы, Казахстан.

***Скрипникова А.И.* –** автор-корреспондент, PhD, ст. преподаватель кафедры ЮНЕСКО по журналистике и коммуникации, Казахский национальный университет им. аль-Фараби, Алматы, Казахстан.