

ISSN 2518-1483 (Online),
ISSN 2224-5227 (Print)

2018 • 4

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ
ҰЛТТЫҚ ҒЫЛЫМ АКАДЕМИЯСЫНЫҢ

БАЯНДАМАЛАРЫ

ДОКЛАДЫ

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК
РЕСПУБЛИКИ КАЗАХСТАН

REPORTS

OF THE NATIONAL ACADEMY OF SCIENCES
OF THE REPUBLIC OF KAZAKHSTAN

ЖУРНАЛ 1944 ЖЫЛДАН ШЫҒА БАСТАҒАН
ЖУРНАЛ ИЗДАЕТСЯ С 1944 г.
PUBLISHED SINCE 1944



Бас редакторы
х.ғ.д., проф., ҚР ҰҒА академигі **М.Ж. Жұрынов**

Редакция алқасы:

Адекенов С.М. проф., академик (Қазақстан) (бас ред. орынбасары)
Величкин В.И. проф., корр.-мүшесі (Ресей)
Вольдемар Вуйцик проф. (Польша)
Гончарук В.В. проф., академик (Украина)
Гордиенко А.И. проф., академик (Белорус)
Дука Г. проф., академик (Молдова)
Илолов М.И. проф., академик (Тәжікстан),
Леска Богуслава проф. (Польша),
Локшин В.Н. проф. чл.-корр. (Қазақстан)
Нараев В.Н. проф. (Ресей)
Неклюдов И.М. проф., академик (Украина)
Нур Изура Удзир проф. (Малайзия)
Перни Стефано проф. (Ұлыбритания)
Потапов В.А. проф. (Украина)
Прокопович Полина проф. (Ұлыбритания)
Омбаев А.М. проф., корр.-мүшесі (Қазақстан)
Өтелбаев М.О. проф., академик (Қазақстан)
Садыбеков М.А. проф., корр.-мүшесі (Қазақстан)
Сатаев М.И. проф., корр.-мүшесі (Қазақстан)
Северский И.В. проф., академик (Қазақстан)
Сикорски Марек проф., (Польша)
Рамазанов Т.С. проф., академик (Қазақстан)
Такибаев Н.Ж. проф., академик (Қазақстан), бас ред. орынбасары
Харин С.Н. проф., академик (Қазақстан)
Чечин Л.М. проф., корр.-мүшесі (Қазақстан)
Харун Парлар проф. (Германия)
Энджун Гао проф. (Қытай)
Эркебаев А.Э. проф., академик (Қырғыстан)

«Қазақстан Республикасы Ұлттық ғылым академиясының баяндамалары»

ISSN 2518-1483 (Online),

ISSN 2224-5227 (Print)

Меншіктенуші: «Қазақстан Республикасының Ұлттық ғылым академиясы» Республикалық қоғамдық бірлестігі (Алматы қ.)
Қазақстан республикасының Мәдениет пен ақпарат министрлігінің Ақпарат және мұрағат комитетінде 01.06.2006 ж.
берілген №5540-Ж мерзімдік басылым тіркеуіне қойылу туралы куәлік

Мерзімділігі: жылына 6 рет.

Тиражы: 500 дана.

Редакцияның мекенжайы: 050010, Алматы қ., Шевченко көш., 28, 219 бөл., 220, тел.: 272-13-19, 272-13-18,
<http://nauka-nanrk.kz>, reports-science.kz

© Қазақстан Республикасының Ұлттық ғылым академиясы, 2018

Типографияның мекенжайы: «Аруна» ЖК, Алматы қ., Муратбаева көш., 75.

Главный редактор
д.х.н., проф., академик НАН РК **М. Ж. Журинов**

Редакционная коллегия:

Адекенов С.М. проф., академик (Казахстан) (зам. гл. ред.)
Величкин В.И. проф., чл.-корр. (Россия)
Вольдемар Вуйцик проф. (Польша)
Гончарук В.В. проф., академик (Украина)
Гордиенко А.И. проф., академик (Беларусь)
Дука Г. проф., академик (Молдова)
Илолов М.И. проф., академик (Таджикистан),
Леска Богуслава проф. (Польша),
Локшин В.Н. проф. чл.-корр. (Казахстан)
Нараев В.Н. проф. (Россия)
Неклюдов И.М. проф., академик (Украина)
Нур Изура Удзир проф. (Малайзия)
Перни Стефано проф. (Великобритания)
Потапов В.А. проф. (Украина)
Прокопович Полина проф. (Великобритания)
Омбаев А.М. проф., чл.-корр. (Казахстан)
Отелбаев М.О. проф., академик (Казахстан)
Садыбеков М.А. проф., чл.-корр. (Казахстан)
Сатаев М.И. проф., чл.-корр. (Казахстан)
Северский И.В. проф., академик (Казахстан)
Сикорски Марек проф., (Польша)
Рамазанов Т.С. проф., академик (Казахстан)
Такибаев Н.Ж. проф., академик (Казахстан), зам. гл. ред.
Харин С.Н. проф., академик (Казахстан)
Чечин Л.М. проф., чл.-корр. (Казахстан)
Харун Парлар проф. (Германия)
Энджун Гао проф. (Китай)
Эркебаев А.Э. проф., академик (Кыргызстан)

Доклады Национальной академии наук Республики Казахстан»

ISSN 2518-1483 (Online),

ISSN 2224-5227 (Print)

Собственник: Республиканское общественное объединение «Национальная академия наук Республики Казахстан» (г. Алматы)

Свидетельство о постановке на учет периодического печатного издания в Комитете информации и архивов Министерства культуры и информации Республики Казахстан №5540-Ж, выданное 01.06.2006 г.

Периодичность: 6 раз в год.

Тираж: 500 экземпляров

Адрес редакции: 050010, г.Алматы, ул.Шевченко, 28, ком.218-220, тел. 272-13-19, 272-13-18

<http://nauka-nanrk.kz> reports-science.kz

©Национальная академия наук Республики Казахстан, 2018 г.

Адрес типографии: ИП «Аруна», г.Алматы, ул.Муратбаева, 75

E d i t o r i n c h i e fdoctor of chemistry, professor, academician of NAS RK **M.Zh. Zhurinov****E d i t o r i a l b o a r d :****Adekenov S.M.** prof., academician (Kazakhstan) (deputy editor in chief)**Velichkin V.I.** prof., corr. member (Russia)**Voitsik Valdemar** prof. (Poland)**Goncharuk V.V.** prof., academician (Ukraine)**Gordiyenko A.I.** prof., academician (Belarus)**Duka G.** prof., academician (Moldova)**Iolov M.I.** prof., academician (Tadjikistan),**Leska Boguslava** prof. (Poland),**Lokshin V.N.** prof., corr. member. (Kazakhstan)**Narayev V.N.** prof. (Russia)**Nekludov I.M.** prof., academician (Ukraine)**Nur Izura Udzir** prof. (Malaysia)**Perni Stephano** prof. (Great Britain)**Potapov V.A.** prof. (Ukraine)**Prokopovich Polina** prof. (Great Britain)**Ombayev A.M.** prof., corr. member. (Kazakhstan)**Otelbayv M.O.** prof., academician (Kazakhstan)**Sadybekov M.A.** prof., corr. member. (Kazakhstan)**Satayev M.I.** prof., corr. member. (Kazakhstan)**Severskiy I.V.** prof., academician (Kazakhstan)**Sikorski Marek** prof., (Poland)**Ramazanov T.S.** prof., academician (Kazakhstan)**Takibayev N.Zh.** prof., academician (Kazakhstan), deputy editor in chief**Kharin S.N.** prof., academician (Kazakhstan)**Chechin L.M.** prof., corr. member. (Kazakhstan)**Kharun Parlar** prof. (Germany)**Endzhun Gao** prof. (China)**Erkebayev A.Ye.** prof., academician (Kyrgyzstan)**Reports of the National Academy of Sciences of the Republic of Kazakhstan.****ISSN 2224-5227****ISSN 2518-1483 (Online),****ISSN 2224-5227 (Print)**

Owner: RPA "National Academy of Sciences of the Republic of Kazakhstan" (Almaty)

The certificate of registration of a periodic printed publication in the Committee of Information and Archives of the Ministry of Culture and Information of the Republic of Kazakhstan N 5540-Ж, issued 01.06.2006

Periodicity: 6 times a year

Circulation: 500 copies

Editorial address: 28, Shevchenko str., of.219-220, Almaty, 050010, tel. 272-13-19, 272-13-18,

<http://nauka-nanrk.kz> / reports-science.kz

Sh.S. Imangaliyeva

Narxoz University
e-mail:imangaliyeva22@gmail.com

**COMPARATIVE STUDIES OF THE INTERNATIONALIZATION
OF HIGHER EDUCATION: BENCHMARKING ANALYSIS
OF EUROPEAN, KAZAKH AND CHINESE UNIVERSITIES
IN THE FRAMEWORK OF THE ERASMUS+ PROJECT**

Abstract. This article describes the main comparative research approaches of the process of internationalization of higher education and the results of benchmarking analysis of internationalization strategies and practices in 11 European, Kazakh and Chinese universities involved in Erasmus+ "Welcome: towards the incoming international University communities" project. In many countries, benchmarking is used to assess the quality of internationalization along with other tools. Comparison and identification of success stories and best practices are key aspects of benchmarking aimed at improvement and development. The scholars note that universities need a way to monitor internationalization and collect information on a continuous basis. The results of the study confirm the increasing importance, diversity, and complexity of strategies and practices of internationalization in European, Kazakh and Chinese universities.

Keywords: benchmarking analysis, internationalization, academic mobility, higher education, strategy.

The growing interest in the internationalization of higher education comes from a number of reasons. Firstly, the process of globalization of the economy and labor markets has pushed the demand for competent employees with foreign language skills and possession of intercultural skills. As the global economy becomes more interconnected, multilingualism and intercultural skills take on greater and greater importance on a global scale. Secondly, the export of educational services has become one of the sources of income for higher education institutions and national economies in many countries. The advantages of internationalization of higher education are obvious: improving the quality of training, joint research projects, implementation of international quality standards and expansion of international cooperation. However, along with these positive facts, there is skepticism about the quality, effectiveness, and relevance of education and research in the context of international cooperation, and mounting concerns about inequality and marginalization. While internationalization supporters generally agree with the importance and necessity of this process in universities, the internationalization strategies vary considerably in format and content (Aigner, Nelson, and Stimpfl, 1992; Lian, 2003). Among the various strategies in different countries, there are common in nature and content and approaches used by higher education institutions. A number of authors suggest that the most frequently used internationalization strategies include student exchange programs, the internationalization of educational program, foreign internship programs, recruiting of foreign students, academic mobility programs for teaching staff and personnel; international publication of articles and reports (Knight, 1997; Francis, 1993; Lian, 2003; McKellin, 1998; Henson&Noel, 1989 ; Holzner&Greenwood, 1995).

The modern research uses the definition of internationalization given by J. Knight as "the process of integrating an international, intercultural or global dimension into purpose, functions, and delivery of postsecondary education" (Knight, 2003). The reason that this definition is most acceptable is its completeness, which allows to connect all possible international dimensions with key concepts of higher education. Knight (2005, 2008) argues that internationalization revolves around two main components: internationalization within the campus - actions taken in the local context of the institution and focused on curriculum and internationalization abroad - activities outside the campus. These components do not exclude each other, but are closely intertwined in policies and programs of higher education.

The international dimension of higher education is widely promoted in many countries at the national and institutional levels. The national level has a significant impact on the international dimension of higher education through policies, financing, programs and regulatory frameworks. At the same time, the real process of internationalization takes place at the institutional level (Knight, 2004). To a certain extent, the institutional level is a mirror reflecting the national policy. More and more higher education institutions are becoming independent actors in the process of internationalization. According to the 3rd global survey by the International Association of Universities (Knight, 2003), based on the analysis of the questionnaires of 745 universities from 115 countries, 78% of universities believe that in recent years the importance of internationalization has increased. Despite the fact that each institution has its own unique approach to improving the internationalization, most strategies share common features: (1) internationalization is reflected in the mission of the university; (2) the availability of a reward scheme of study abroad by providing financial assistance and developing new partnerships with universities abroad; (3) increase in the number of foreign students on campus; (4) the internationalization of the educational program; (5) encouraging the success of teaching staff and researchers in internationalization through participation in academic mobility programs; (6) compulsory foreign language skills as a requirement for graduates (Engberg and Green, 2002). Compared with the early 1990s, when studies suggested that internationalization could be clearly delineated (Teichler, 1999), the research on internationalization in higher education is now generally more closely related to other topics (for example, governance, policy, financing etc.), which leads to an increase in the blurring or multidimensionality of the topic itself and is characterized by an unclear differentiation of the concepts.

In the studies, there are two different approaches to assessing the internationalization: quantitative and qualitative. The quantitative approach allows for institutional comparisons by determining the level of internationalization of a particular institution, so this approach uses measurable indicators to assess the internationalization (Lian, 2003; Snellman, 1995; Horn, Hendel, and Fry, 2007). Unlike the quantitative approach, the qualitative ones are used for self-improvement, and not for comparison with other higher education institutions (Knight, 2002) and therefore the results of institutional correspondence to the internationalization, evaluated using a qualitative approach, usually remain confidential (Horn, Hendel, and Fry, 2007).

In 2009, the EAIE published the document “Measuring the success of what we do” under the editorship of H. de Wit. The introduction indicates that the issue of evaluation and measurement is becoming more urgent for inclusion in the agenda of professionals in the field of internationalization of higher education. International rankings of higher education institutions are a widely discussed example of how the measurement began to influence the development of higher education. The call for accountability by students, teachers, deans, university administrators and national authorities, and the call for quality assurance are the important issues on the agenda of higher education in general, and this includes the process of internationalization, including educational programs. Accreditation, ratings, certification, audit and benchmarking have become key issues on the international agenda of researchers and practitioners in higher education.

Benchmarking, along with other tools, is currently used to assess the quality of internationalization. Comparison and identification of the best practices are two key aspects of benchmarking aimed at improving and developing. Knight (2008) concludes that "institutions need a way to monitor internationalization and collect information on an ongoing basis. Universities often spend too much time describing the status of internationalization in diffused terms. More accurate indicators of specific aims and objectives will help to obtain the information needed to analyze the strengths and areas requiring improvement. With the help of the collected information, HEIs can move to a more important step in the analysis - how to preserve the advantages and improve the weaknesses in order to achieve the goals of internationalization. This, in turn, precedes the analysis of the results and the impact of the efforts made on internationalization."

Methodology and results of benchmarking analysis

Conducted within the framework of the Erasmus+ project "WELCOME: Opening to meet new international university communities (2016-2019)" benchmarking analysis was aimed at evaluating the process of internationalization in each university, taking into account the internal and external context, as well as comparative analysis of participating universities by region. The WELCOME project consortium

consists of 12 partners: 6 European universities (Instituto Superior Técnico, Universitat Politècnica de Catalunya, Universitat Rovira Virgili, Université de Perpignan, Royal Institute of Technology and Tallin Institute of Technology) 4 Kazakhstani universities (Narxoz University, Karaganda State Medical University, Gumilyov Eurasian National University, Kazakh University of Economics, Finance and International Trade) and 2 Chinese universities (Beihang University, Tongji University). This project is funded with the support of the European Commission.

The main aim of the project is to increase the international level of Kazakh and Chinese higher educational institutions through the implementation of strategic and marketing tools to attract foreign students, teachers, and scholars. Objectives of the project: study of the strategy and practice of the internationalization of universities; creation of a portal of Kazakhstani and Chinese universities on internationalization; creation of service-oriented offices of international cooperation at universities; training of employees of the offices of international cooperation; development and implementation of strategic and marketing plans for internationalization at the institutional level.

The general methodology and questionnaire were developed by a group of Instituto Superior Técnico, who is responsible for the evaluation work package and are approved by the coordinator of the Universitat Politècnica de Catalunya project. The online survey was conducted in April-June 2017 using the Lime Survey platform. The final report on the basis of data collected and submitted by each university was posted on the project website <http://welcomeproject.net/index.html>

The study focuses on the main aspects of internationalization in a total of 90 indicators: figures and facts (12); structures and models of internationalization (21); academic training (17); services for the support of students (9); international recognizability (10); marketing and communications (21). In this article, some of these indicators are listed.

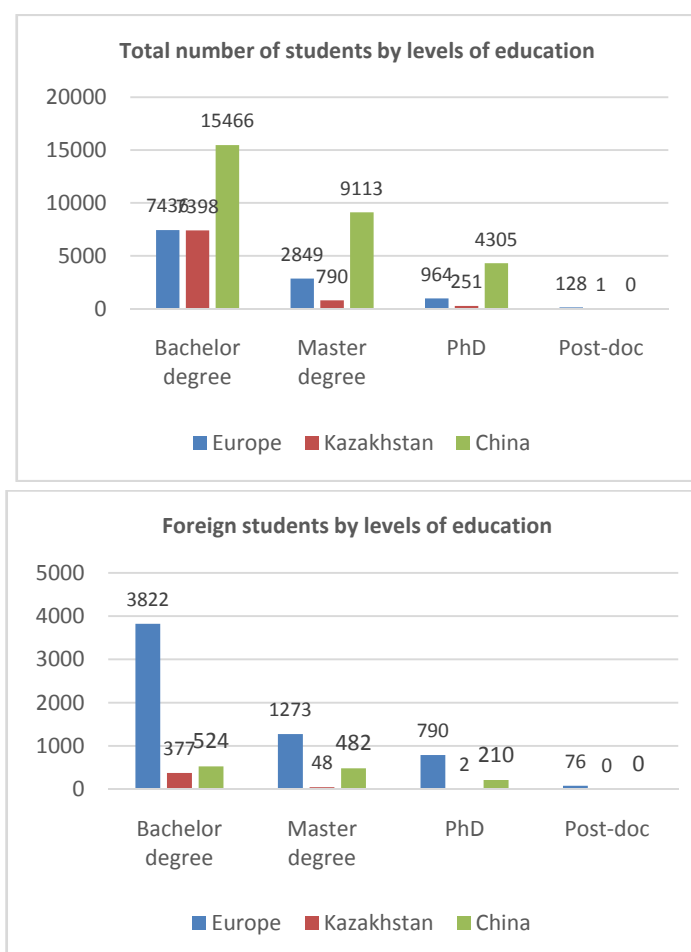


Figure 1 - Number of students by levels of education

Figure 1 presents data on the total number of students and foreign students by levels of education in the WELCOME consortium. The analysis shows that in Chinese universities the highest level of students at the bachelor degree level ($n=15466$), master degree level ($n=9113$) and doctoral program ($n=4305$), while in European universities - a high level of postdoctoral students. In addition, it is the largest number of foreign students involved in the European bachelor degree programs ($n=3822$), master degree programs ($n=1273$), PhD programs ($n=790$) and post-doctoral studies programs ($n=76$). These indicators are significantly different from those recorded in Kazakh and Chinese universities. The number of bachelor degree students in all three levels prevails in all three regions: in Europe ($n=7436$ students), in Kazakhstan ($n=7398$) and in China ($n=15466$), as well as foreign students at bachelor degree (Europe= 3822 ; Kazakhstan= 377 , China= 514).

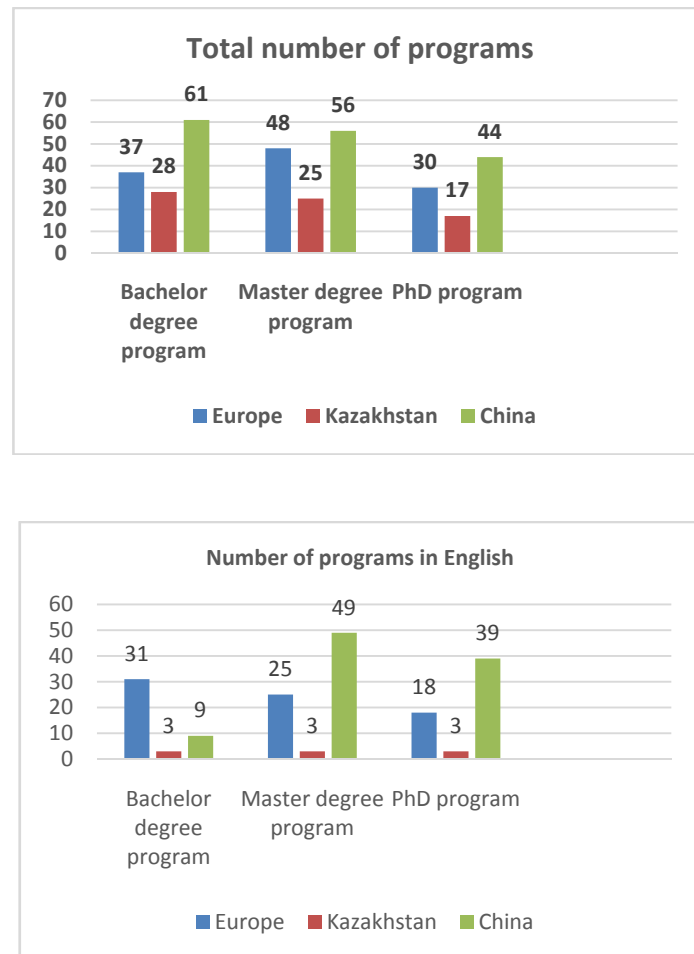


Figure 2 - Number of programs by levels of education

As for the number of programs offered by the universities in the consortium, it can be seen the figure 2 that the Chinese universities are on the first place (bachelor degree programs = 61, Master degree programs = 56, PhD = 39). They also have high rates of programs in English, which are comparable to European universities. It is worth paying attention to the low indicators in bachelor programs in European ($n = 2$), Kazakh ($n = 3$) and Chinese ($n = 9$) higher education institutions, considering the information in figure 1, which states that the bachelor's levels comprise the largest number of students in three regions. Kazakhstani universities have the lowest number of programs in English, regardless of the level of education, which is an unfavorable factor for attracting foreign students.

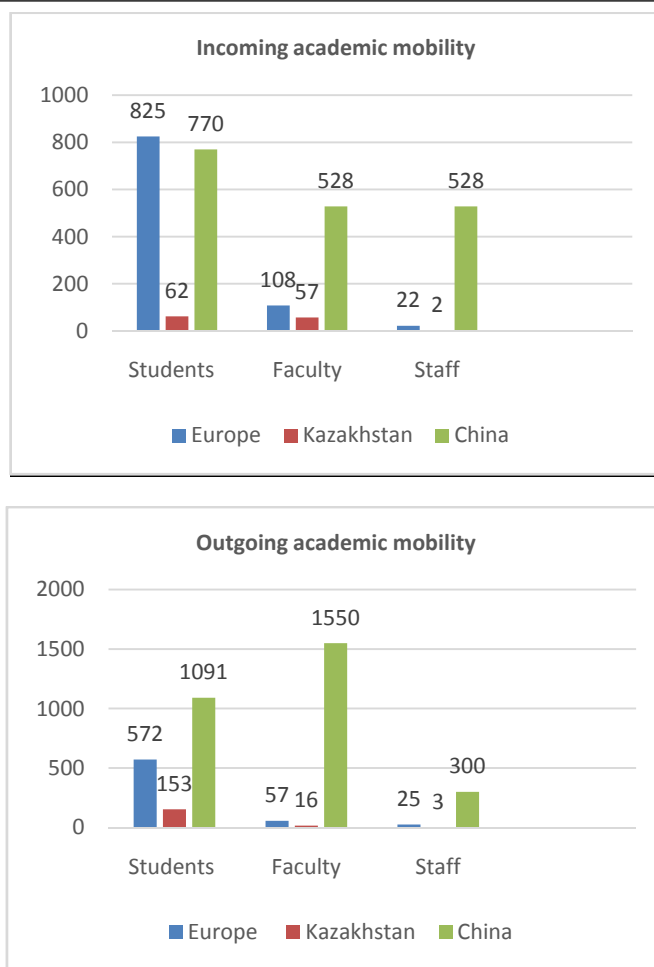


Figure 3 - Incoming and outgoing academic mobility of students, faculty, and staff

Taking into account the information presented in Figure 3, it can be noted that in European universities it is the highest indicator of incoming academic mobility of students (n=825), and in China - the highest mobility of faculty and staff (n=528). According to the outgoing academic mobility, Chinese universities are leading in all categories: students (n=1091), faculty (n=1550) and staff (n=300).

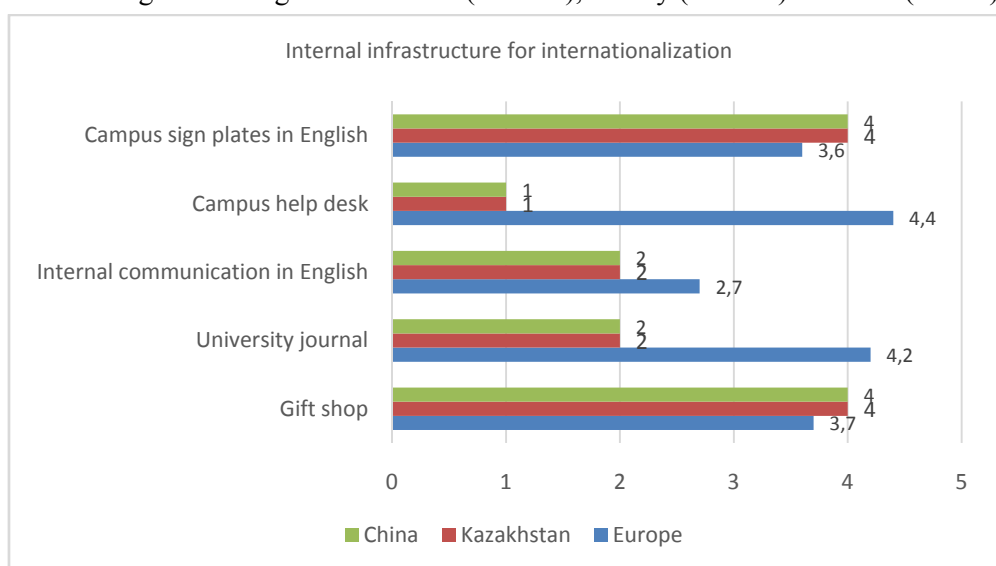


Figure 4. Internal infrastructure for internationalization

The universities evaluated the internal infrastructure of universities according to the scale from 1 (very bad) to 5 (very good) in several directions. The university information journal was marked by European universities (4.2 points), in China and Kazakhstan, they received low scores (2.0 points). Although internal communications in English on campus were estimated positively by the European universities (2.7 points), they are an area that requires additional efforts to improve, as well as in China and Kazakhstan (2.0 points). The availability of campus help desk was noted by the European universities (4.4 points), while in Chinese and Kazakh universities this indicator is insignificant (1.0 point).



Figure 5 - English proficiency among faculty and administrative staff

Figure 6 shows respondents' answers regarding the communication skills of staff in English. In all three regions, faculty, administrative and technical personnel need to strengthen their English language skills, especially given the fact that they are all in direct contact with foreign students. In three regions most universities offer English language courses for beginners and advanced students, the main beneficiaries are primarily teachers and administrative staff. From the survey, it was found out that only 50.0% of students of the Kazakh universities are covered by the English language courses, while the language proficiency is the main condition for the development of academic mobility.

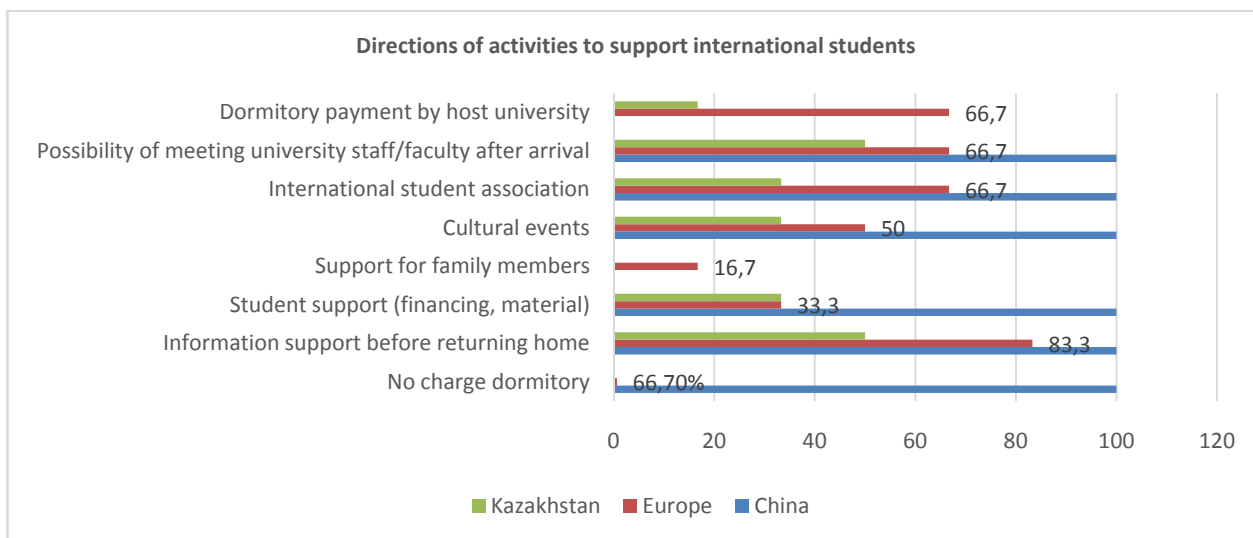


Figure 6 - Activities to support foreign students

Figure 6 presents the main services and activities to support foreign students in higher education institutions of the three regions. Information and support before returning home (China=100%, Europe=83.3%, Kazakhstan=50.0%) and the opportunity to meet with university teachers or staff on arrival (China=100%, Europe=66.7%, Kazakhstan=50.0 %) - the universities of three regions offer these two events for their foreign students. Next are the availability of an international student association, cultural events and free accommodation in dormitory.

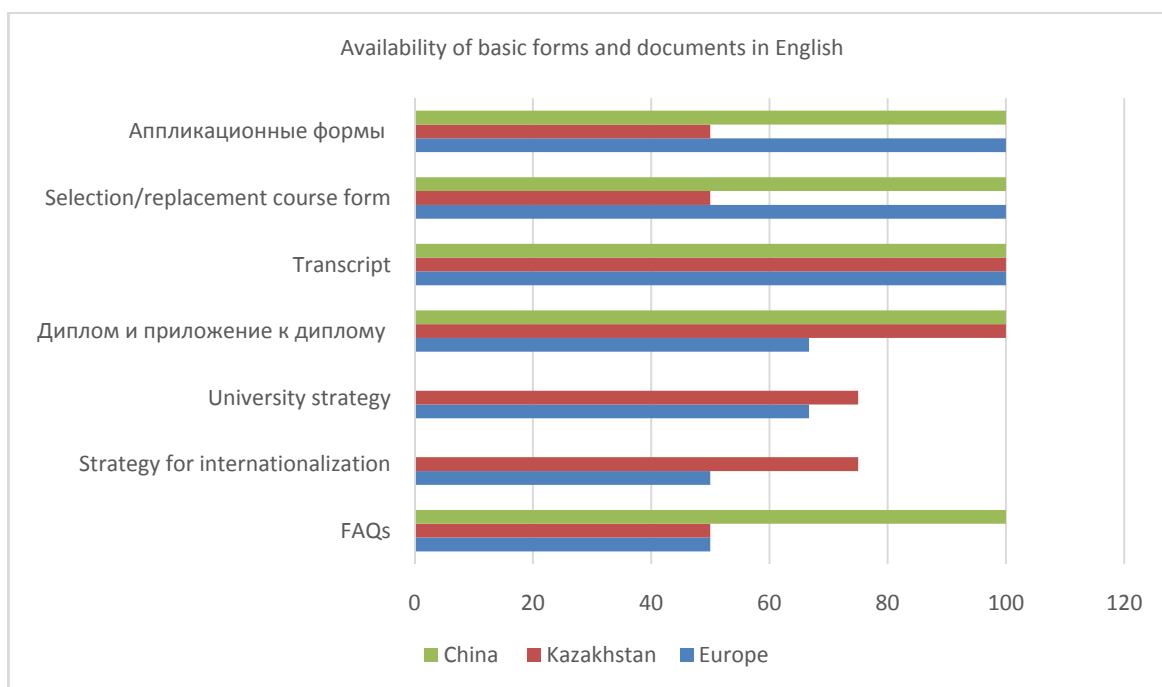


Figure 7 - Availability of basic forms and documents in English

Bilingual documents are the defining tools for the integration of foreign students and teachers, setting the framework for belonging to the university. Figure 8 shows the data from which it can be seen that all members of the consortium have transcripts, diplomas and supplements, application forms in English.

Conclusions and lessons learned from benchmarking analysis

Benchmarking analysis of European, Chinese and Kazakhstani universities shows that differences and similarities in internationalization strategies are conditional upon the peculiarities of regional and national contexts. On the selection and attraction of foreign students, Chinese and Kazakh universities need to work out strategies at all levels: bachelor, master, PhD. To meet this goal, it is advisable for Kazakh universities to focus on developing and implementing programs in English as a whole, and for Chinese universities to introduce bachelor degree programs in English. Bachelor degree students are the largest group in all three regions, therefore it is important to improve the attractiveness of academic mobility at the bachelor's level by developing scholarship programs. Such steps can be a starting point for change, as the indicators in China and Kazakhstan are much lower than the European ones at this stage. Every student, employee or teacher who comes in the framework of mobility, should be considered as a potential and unofficial ambassador and promoter of the university and the country.

Agreements on cooperation, membership in international associations and participation in rankings are significant aspects that are important to take into account in Chinese and Kazakhstani universities. With effective use, they can make a positive contribution to the process of internationalization and the international reputation of universities. Promotion in the international space, including the recruiting of students, refers to the responsibility of marketing management in universities. It is noteworthy that in the presence of marketing and communication strategies and plans, they are not aimed at international promotion and internationalization of universities.

Internationalization is the aim and commitment to ensure it should be global for all academic and administrative departments of the university. Measures for internationalization within the university on campus should be carried out and supported by all units, not just by the international department. In this regard, it is important to provide training in working in a multicultural international environment, to encourage the participation of staff and faculty, and to make English language courses available to all.

All higher education institutions were asked to identify one most important change or improvement in the model of internationalization: Chinese institutions noted the need to strengthen internationalization at the school and faculty levels; Kazakhstani institutions pointed out the need to increase the number of foreign students, improve international marketing and create a common model for the implementation of the internationalization process; European universities noted the need to increase the budget, awareness of the importance of internationalization, a clear division of responsibilities between various stakeholders in universities.

How was the benchmarking analysis useful for universities? First of all, it is an opportunity to get a clearer picture of the current situation of our own strategy and processes of internationalization compared with higher education institutions in other regions of the world. Secondly, universities have the opportunity to observe trends and problems in internationalization, which result from comparative analysis. BThirdly, to learn from the best practices and gain experience of other universities. Fourthly, in the case of comparison with universities from other regions, study participants can learn about the opportunities and problems of cooperation. Fifthly, focus on further development and improvement.

REFERENCES

- [1] Aigner, J.S., Nelson, P. & Stimpfl, J.R. *Internationalizing the University: making it work*. Springfield: CBIS Federal// *Internationalization of Higher Education: Towards a Conceptual Framework. Policy Futures in Education*. **1992.**, No 1, (2).
- [2] De Wit, H. *Changing rationales for the internationalization of higher education*. International Higher Education - 1999. Retrieved from http://www.bc.edu/bc_org/avp/soe/cihe/newsletter/News15/text1.html
- [3] De Wit, H. Rationales for internationalization of higher education - 1998. Retrieved from <http://www.ipv.pt/millennium/wit11.htm>
- [4] De Wit, H. *Internationalization of higher education in the United States of America and Europe: A historical, comparative, and conceptual analysis*. Westport, Connecticut: Greenwood Press. **2002**.
- [5] Engberg, D. & Green, M. F. (Eds.). *Promising practices: Spotlighting excellence in comprehensive internationalization*. Washington, DC: American Council on Education. **2002**.
- [6] Horn, A. S., Hendel, D. D. & Fry, G. W. Ranking the international dimension of top research universities in the United States// *Journal of Studies in International Education*. **2007.**, No 11(3-4), 330-358.
- [7] Holzner, B. & Greenwood, D. Chapter 2. The institutional policy contexts for international higher education in the United States of America// In H. De Wit (Ed.). *Strategies for internationalization of higher education: A comparative study of*

Australia, Canada, Europe and the United States of America. Amsterdam: European Association for International Education (EAIE). 1995.

[8] Knight, Jane. Higher Education in Turmoil. The Changing World of Internationalisation. Rotterdam, the Netherlands.- 2008.

[9] Knight, J. Internationalization Remodeled: Definitions, Approaches, and Rationales. // *Journal of Studies in International Education*. 2004. Vol. 8 No. 1, 5-31.

[10] Knight, J. *Developing an institutional self-portrait using the Internationalization Quality Review Process guidelines*. – 2002 Retrieved from <http://www.eotu.uiuc.edu/events/IORP-SelfPortrait.pdf>

[11] Knight, J. Updated internationalization definition // *International Higher Education*. – 2003. , No33, 2-3.

[12] Lane, J, Kinsler, K. What is the role for governments in global higher education? // *The Chronicle of Higher Education*. - 2012 Retrieved from <http://chronicle.com/blogs/worldwise/what-is-the-role-for-governments-in-universityinternationalization/29399>

[13] Teichler, U. Internationalisation as a challenge for higher education in Europe // *Tertiary Education and Management*. 1999. No5, 5-23.

[14] Teichler, Ulrich. The Changing Debate on Internationalisation of Higher Education. // *Higher Education*. -2004, № 48, pp 5-26.

[15] Van der Wende, M. Internationalization Policies: About New Trends and Contrasting Paradigms // *Higher Education Policy*. 2001. , No 14(3), 249-259.

Ш.С. Имангалиева

Университет Нархоз

**ЖОҒАРЫ БІЛІМ БЕРУДІ ИНТЕРНАЦИОНАЛИЗАЦИЯЛАУДЫҢ САЛЫСТЫРМАЛЫ
ЗЕРТТЕУЛЕРІ: ERASMUS + АЯСЫНДА ЕУРОПАЛЫҚ, ҚАЗАҚСТАНДЫҚ ЖӘНЕ ҚЫТАЙЛЫҚ
ЖОҒАРЫ ОҚУ ОРЫНДАРЫНЫҢ САЛЫСТЫРМАЛЫ ТАЛДАУЫ**

Аннотация. Мақалада жоғары оқу орындары интернационализациясының салыстырмалы талдауларының негізгі бағыттары және Erasmus+ «Welcome: Towards incoming international university communities» жобасының консорциумына кіретін 11 еуропалық, қазақстандық және қытай университеттерінің стратегиясы мен тәжірибесінің бенчмаркинг-талдауының нәтижелері баяндалған. Қазіргі таңда бенчмаркинг өзге де құралдармен қатар интернационализацияның сапасын бағалауда қолданылады. Алғы тәжірибелерді салыстыру және анықтау бенчмаркингтің жетілдіру және дамытуға бағытталған негізгі екі басты аспектісі болып табылады. Зерттеушілердің айтуынша жоғары оқу орындарына тұрақты негізде интернационализацияны бағалап, ақпараттады жинақтап отыру қажет. Жүргізілген зерттеу нәтижелері еуропалық, қазақстандық және қытай жоғары оқу орындарындағы стратегия мен интернационализацияның маңыздылығын, әр түрлілігі мен қиындығын растайды.

Түйін сөздер: бенчмаркинг-талдау, интернационализация, академиялық ұтқырлық, жоғары оқу, стратегия.

Ш.С. Имангалиева

Университет Нархоз

**СРАВНИТЕЛЬНЫЕ ИССЛЕДОВАНИЯ ИНТЕРНАЦИОНАЛИЗАЦИИ ВЫСШЕГО ОБРАЗОВАНИЯ:
БЕНЧМАРКИНГ-АНАЛИЗ ЕВРОПЕЙСКИХ, КАЗАХСТАНСКИХ И КИТАЙСКИХ ВУЗОВ В
РАМКАХ ПРОЕКТА ЭРАСМУС+**

Аннотация. В статье изложены основные подходы сравнительных исследований интернационализации высшего образования и результаты бенчмаркинг-анализа стратегий и практики интернационализации 11-ти европейских, казахстанских и китайских университетов, входящих в консорциум проекта Erasmus+ «Welcome: Towards incoming international university communities». Бенчмаркинг, наряду с другими инструментами, используется в настоящее время для оценки качества интернационализации. Сопоставление и выявление успешных практик являются двумя ключевыми аспектами бенчмаркинга, направленных на улучшение и развитие. Исследователи отмечают, что вузам необходим способ мониторинга интернационализации и сбора информации на постоянной основе. Результаты проведенного исследования подтверждают возрастающее значение, а также разнообразие и сложность стратегий и практик интернационализации в европейских, казахстанских и китайских высших учебных заведениях.

Ключевые слова: бенчмаркинг-анализ, интернационализация, академическая мобильность, стратегия, высшее образование.

МАЗМҰНЫ

Техникалық ғылымдар

(ағылшын тілінде)

Байконурова А.О., Усольцева Г.А., Маркаметова М.С., Нуржанова С.Б., Ақпанбаев Р.С. Өздігінен құрылымды түзіліс жасайтын, ванадий қосылыстарынан тепе-теңдік күйлері..... 5

Аграрлық ғылымдар

(ағылшын тілінде)

Сейтова В., Исатаева Г., Гизе Роланд. Ауыл шаруашылығындағы инновациялық процесстерді тұрақты дамыту: инновациялық жүйедегі кешенді мәселелер..... 12

Биология ғылымдар

(ағылшын тілінде)

Мустафин К.Г., Бисько Н.А., Нармуратова Ж.Б., Жакипбекова А.С. Биомассасында полисахаридтердің жоғары мөлшері бар *L. Edodes* штамдарының скринингі..... 22

Қоғамдық ғылымдар

(ағылшын тілінде)

Исмаилова Р.А., Матайбаева Г. Қазақстанда ауылшаруашылығын кредиттеу мемлекеттік қолдау..... 27

Уаиов Г.Қ. Қазақстандағы шағын және орта бизнесті дамыту тенденциялары..... 33

Жакупбекова А.Е. Жоғарғы оқу орнының сапасын талдайтын фаззи моделін құрастыру..... 39

Иманғалиева Ш.С. Жоғары білім беруді интернационализациялаудың салыстырмалы зерттеулері:

Ergasmus + аясында еуропалық, қазақстандық және қытайлық жоғары оқу орындарының салыстырмалы талдауы..... 46

Кантарбаева Ш. М. Аграрлық азық-түлік нарығында Қазақстан мен Қытай арасындағы экономикалық қатынастарды мемлекеттік реттеу..... 55

Утеев Б.Ж., Досманбетова А.С. Қазақстан агроөнеркәсіп кешенінде ұйымдық-басқарушылық инновацияларын мемлекеттік ынталандырудың басымдықтары..... 68

Алтынбасарова М.А., Шамиудинова Г.Т. Халық санағы материалдары негізінде Қазақстанның демографиялық тарихы мен саясатын зерттеу: проблемалары мен келешегі..... 74

Аюпова З.К., Құсайынов Д.Ө. Қазақстан республикасындағы құқықтық мемлекет қалыптасуының жиырма жеті жылдық тәжірибесі..... 82

Домалатов Е.Б. Ғаламдық инновациялық белсенділік индексі жағдайындағы Қазақстан..... 88

Бекжанова Т.К., Әбжан Ж.К., Ешпанова Д.Д. Қазақстанның жастар жұмысының қазіргі заманғы тенденциясы..... 95

Ескалиева А. Ж., Ералиева А.А., Абузьярова Ж.Р. Адамның капиталының құрылысы факторлары білім және денсаулық инвестициялары..... 103

Нургабылов М.Н., Абдрахманова Р.С., Дошан А.С. Қазақстан республикасының экономикалық дамуындағы кәсіпкерліктер..... 108

Сабирова Р.К., Тажиденова А.Р., Хайруллин М.К. Қазақстан республикасының экономикасын әртараптандырудың негізгі бағыттары..... 112

Шаукерова З.М., Айқупешева Д.М. Лизинг операцияларының салық шығаруының ерекшеліктері..... 116

Есмағұлова Н.Д., Баймбетова А.Б., Оқұтаева С.Т., Мухияева Д.М. Қазақстанның машина жасау кешеніндегі инвестициялық саясатындағы мемлекеттің ролі..... 120

Қоғамдық ғылымдар

(орыс тілінде)

Домалатов Е.Б. Ғаламдық инновациялық белсенділік индексі жағдайындағы Қазақстан..... 124

СОДЕРЖАНИЕ

Технические науки

(на английском языке)

<i>Байконурова А.О., Усольцева Г.А., Маркаметова М.С., Нуржанова С.Б., Акпанбаев Р.С.</i> Равновесные состояния соединений ванадия, способных к самопроизвольному структурообразованию.....	5
---	---

Аграрные науки

(на английском языке)

<i>Сейтова В., Исатаева Г., Гизе Роланд.</i> Устойчивое развитие инновационных процессов в сельском хозяйстве: комплексные проблемы в инновационной системе.....	12
--	----

Биологические науки

(на английском языке)

<i>Мустафин К.Г., Бисько Н.А., Нармуратова Ж.Б., Жакипбекова А.С.</i> Скрининг штаммов <i>L. Edodes</i> с высоким содержанием в биомассе полисахаридов.....	22
---	----

Общественные науки

(на английском языке)

<i>Исмаилова Р.А., Матайбаева Г.Ж.</i> Государственная поддержка кредитования сельского хозяйства в Казахстане...	27
<i>Уаилов Г.К.</i> Тенденции развития малого и среднего бизнеса в Казахстане.....	33
<i>Жакупбекова А.Е.</i> Разработка нечеткой модели для анализа образовательной деятельности.....	39
<i>Имангалиева Ш.С.</i> Сравнительные исследования интернационализации высшего образования: бенчмаркинг-анализ европейских, казахстанских и китайских вузов в рамках проекта Эрасмус+	46
<i>Кантарбаева Ш. М.</i> Госрегулирование экономических отношений между казахстаном и китаем на агропродовольственном рынке.....	55
<i>Утеев Б.Ж., Досманбетова А.С.</i> Перспективы государственного стимулирования организационно-управленческих инноваций в казахстанском агропромышленном комплексе.....	68
<i>Алтынбасарова М.А., Шамиудинова Г.Т.</i> Изучение демографической истории и политики Казахстана на основе материалов переписи населения: проблемы и перспективы.....	74
<i>Аюпова З.К., Кусаинов Д.У.</i> Двадцатисемилетний опыт становления правового государства в республике Казахстан.....	82
<i>Домалатов Е.Б.</i> Казахстан в контексте глобального индекса инновационной активности.....	88
<i>Бекжанова Т.К., Абжан Ж.К., Ешпанова Д.Д.</i> Современная тенденция молодежной безработицы Казахстана.....	95
<i>Ескалиева А. Ж., Ералиева А.А., Абузьярова Ж.Р.</i> Инвестиции в образование и здоровье как факторы формирования человеческого капитала.....	103
<i>Нургабылов М.Н., Абдрахманова Р.С., Дошан А.С.</i> Предпринимательство в экономическом развитии Казахстана... Казахстан.....	108
<i>Сабирова Р.К., Тажиденова А.Р., Хайруллин М.К.</i> Основные направления диверсификации экономики республики Казахстан.....	112
<i>Шаукерова З.М., Айкупешева Д.М.</i> Особенности налогового учета лизинговых операций.....	116
<i>Есмагулова Н.Д., Баймбетова А.Б., Окутаева С.Т., Мухияева Д.М.</i> Роль государства в инвестиционной политике машиностроительного комплекса Казахстана	120

Общественные науки

(на русском языке)

<i>Домалатов Е.Б.</i> Казахстан в контексте глобального индекса инновационной активности.....	124
---	-----

CONTENTS

Technical sciences

(in English)

- Baikonurova A. O., Ussoltseva G. A., Markametova M. S., Nurzhanova S. B., Akpanbayev R. S.* The equilibrium state of compounds of vanadium, capable of spontaneous structure formation..... 5

Agrarian science

(in English)

- Seitova V., Issatayeva G., Giese Roland.* Sustainable innovations in agriculture: complex challenges in the innovation system..... 12

Biological sciences

(in English)

- Mustafin K.G., Bisko N.A., Narmuratova Zh.B., Zhakipbekova A.S.* Screening of *L. Edodes* strain producing biomass with high content of polysaccharides..... 22

Social sciences

(in English)

- Ismailova R.A., Mataybayeva G.Zh.* State support of crediting of agriculture in Kazakhstan..... 27
- Uashov G.K.* Trends of small and medium-sized business development in Kazakhstan..... 33
- Zhakupbekova A.Y.* The development of fuzzy models for analysis of educational activities..... 39
- Imangaliyeva Sh.S.* Comparative studies of the internationalization of higher education: benchmarking analysis of European, Kazakh and Chinese universities in the framework of the Erasmus+ project..... 46
- Kantarbayeva Sh.M.* State regulation of economic relations between Kazakhstan and China on the agrofood Market..... 55
- Uteyev B.Zh., Dosmanbetova A.S.* The prospects of state incentives for organizational and managerial innovations of Kazakhstan agro-industrial complex..... 68
- Altynbasarova M.A., Shamshudinova G.T.* Studying of demographic history and policy of Kazakhstan on the basis of population census materials: problems and prospects..... 74
- Ayupova Z.K., Kussainov D.U.* Twenty-seven year experience of the formation of law-abiding state in the republic of Kazakhstan..... 82
- Domalotov Ye.B.* Kazakhstan in the context of the global index of innovative activity..... 88
- Bekzhanova T.K., Abzhan Zh.K., Yeshpanova D.D.* Modern trends of youth unemployment in Kazakhstan..... 95
- Eskalieva A. Zh., Eralieva A.A., Abuziarova Zh.R.* Investments in education and health as factors of formation of human capital..... 103
- Nurgabylov M.N., Abdrakhmanova R.S., Doshan A.S.* Entrepreneurship in the economic development of the republic of Kazakhstan..... 108
- Sabirova R.K., Tazhidenova A.R., Khairulliev M.K.* The main directions of the economic diversification of the republic of Kazakhstan..... 112
- Shaukerova Z.M., Aikupeshova D.M.* Features of the tax account of leasing operations..... 116
- Esmagulova N.D., Baimbetova A.B., Okutaeva S.T., Muhiyayeva D.M.* The role of the state in the investment policy of the machine-building complex of Kazakhstan..... 120

Social sciences

(in Russian)

- Domalotov Ye.B.* Kazakhstan in the context of the global index of innovative activity..... 124

**Publication Ethics and Publication Malpractice
in the journals of the National Academy of Sciences of the Republic of Kazakhstan**

For information on Ethics in publishing and Ethical guidelines for journal publication see <http://www.elsevier.com/publishingethics> and <http://www.elsevier.com/journal-authors/ethics>.

Submission of an article to the National Academy of Sciences of the Republic of Kazakhstan implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see <http://www.elsevier.com/postingpolicy>), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. In particular, translations into English of papers already published in another language are not accepted.

No other forms of scientific misconduct are allowed, such as plagiarism, falsification, fraudulent data, incorrect interpretation of other works, incorrect citations, etc. The National Academy of Sciences of the Republic of Kazakhstan follows the Code of Conduct of the Committee on Publication Ethics (COPE), and follows the COPE Flowcharts for Resolving Cases of Suspected Misconduct (http://publicationethics.org/files/u2/New_Code.pdf). To verify originality, your article may be checked by the originality detection service Cross Check <http://www.elsevier.com/editors/plagdetect>.

The authors are obliged to participate in peer review process and be ready to provide corrections, clarifications, retractions and apologies when needed. All authors of a paper should have significantly contributed to the research.

The reviewers should provide objective judgments and should point out relevant published works which are not yet cited. Reviewed articles should be treated confidentially. The reviewers will be chosen in such a way that there is no conflict of interests with respect to the research, the authors and/or the research funders.

The editors have complete responsibility and authority to reject or accept a paper, and they will only accept a paper when reasonably certain. They will preserve anonymity of reviewers and promote publication of corrections, clarifications, retractions and apologies when needed. The acceptance of a paper automatically implies the copyright transfer to the National Academy of sciences of the Republic of Kazakhstan.

The Editorial Board of the National Academy of sciences of the Republic of Kazakhstan will monitor and safeguard publishing ethics.

Правила оформления статьи для публикации в журнале смотреть на сайте:

www.nauka-nanrk.kz

ISSN 2518-1483 (Online), ISSN 2224-5227 (Print)

<http://www.reports-science.kz/index.php/ru/>

Редакторы *М. С. Ахметова, Т.А. Апендиев, Аленов Д.С.*
Верстка на компьютере *А.М. Кульгинбаевой*

Подписано в печать 13.08.2018.
Формат 60x881/8. Бумага офсетная. Печать – ризограф.
8,3 п.л. Тираж 500. Заказ 4.