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Original article

Descriptive Analysis of Benchmarking in Respect to SMART/UNI-Q Systems' Intellectual Integrations within the European Higher Education Area

***I. Sibgatullina-Denis*[a,b,c], *O. R. Riabov*[a,b,c*], *E. E. Merzon*[b], *A. Vančová*[d]**

[a] *Institute for Intellectual Integrations, Vienna, Austria*

[b] *Kazan (Volga Region) Federal University, Kazan, Russian Federation*

[c] *Moscow Pedagogical State University, Moscow, Russian Federation,*

[*] *office@rbs-ifie.at*

[d] *Comenius University, Bratislava, Slovakia*

Introduction. The strategy for the development of international education ERASMUS 20.30 stimulates the study of how intellectual integration programmes are introduced into the system of further education of universities around the world. The research is relevant, for studying the integration of intellectual potential in a single space of higher and further education EHEA allows to determine the efficacy of application of world benchmarking technologies in the management of SMART/UNI-Q systems and the convergence of world universities. The EU Education Department conditioned the significance of the research content by the target request to investigate the change in the benchmarking mission at the international education market and to make a thorough informational review of its application in the international activities of universities in the EU, CIS and the Russian Federation for the dissemination of information by international partner universities of ERASMUS central office. The study aims at identifying general and specific indicators of sustainable international partnerships that affect consumer demand at the international education and labour markets by means of concretization of an extensive descriptive analysis of the intellectual integration benchmarking and the description of the processes of benchmarking technology application, its scientific identification and implementation in individual universities, university alliances and consortia. Researchers were looking for an answer to the question: why, with high interest and theoretical recognition of technology benchmarking in quality management, universities show low rates of benchmarking in assessing the quality of their international activities.

Materials and Methods. It is the first time that the research of benchmarking intellectual integrations in the university international activities uses the method of descriptive analysis. The study identifies active sectors of the SMART / UNI-Q benchmarking for the entire set of data voluntarily submitted by the universities participating in the projects of the Austrian Institute for Intellectual Integrations in the pre-pandemic period of 2017-2020. The participating countries have analyzed the share of key participants and the share of published benchmarking studies. The study analyzes the changes in the benchmarking mission in the international education market in accordance with the needs of global consumers. The analysis uses the data of the bases of the EU Department of Education, the ETINED platform and open-access European dissertation reviews portals. The research uses the WERGELAND European Resource Center data as the comparison point indicators. The study presents an analysis of five segments of international benchmarking: transparency, diversity, "product line", digital activity, and digital management tools. Modus infographics shows the real, improved and ideal models. The applied comparative analysis studies the asynchrony of academic mobility during the COVID crisis.

Results. The research findings show low value of efficiency indicators for the use of intellectual integration benchmarking in the international cooperation of university alliances. The predominance and stable efficiency in the use of benchmarking takes place at certain universities in Europe during periods of activity in implementing new strategies of international education and only for a short time most often during the periods of university accreditation. The model for overcoming sustainable development asynchronies in the management of SMART/UNI-Q systems according to the criterion of guaranteeing the quality of higher education in international cooperation EHEA is not final and today it is possible to characterize it through descriptive indicators. Amid the economic crisis and turbulence associated with the COVID-19 pandemic, a decline in large-scale academic mobility is an inevitable trend. However, due to the growing difference in the responses of economies and management in the field of higher vocational education between developed and less developed countries, as well as with the strengthening of general trends in economic integration, the number of academic migrants is likely to increase. Asynchrony, that is, unevenness, of opportunities and adaptation to the new digital environment of university consortia and the possibility to implement the opportunities in practice has become a psychological problem of scientific migration. **Discussion and Conclusion.** The materials of this article will be useful to CEO-s of international universities, heads of departments of international activities, employees of ERASMUS national offices, coordinators of ERASMUS+ projects, departments of continuing professional education and academic mobility in the development of promising strategies for external and internal benchmarking of inter-university projects of intellectual integration and international activity quality management.

Keywords: international experience of integration in European education, recognition of qualifications, quality management, benchmarking, descriptive model, asynchrony in academic mobility during the COVID-19 period

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Оригинальная статья

Дескриптивный анализ бенчмаркинга интеллектуальных интеграций SMART/UNI-Q систем в рамках Европейского пространства высшего образования

***И. Сибгатуллина-Денис*[1,2,3], *О. Р. Рябов*[1,2,3*], *Е. Е. Мерзон*[2], *А. Ванчова*[4]**

[1] *Институт интеллектуальных интеграций, г. Вена, Австрия*

[2] *ФГАОУ ВО «Казанский (Приволжский) федеральный университет», г. Казань, Российская Федерация*

[3] *ФГБОУ ВО «Московский педагогический государственный университет», г. Москва, Российская Федерация,*

[*] *office@rbs-ifie.at*

[4] *Университет Коменского, г. Братислава, Словакия*

Введение. Стратегия развития международного образования ЭРАСМУС 20.30 стимулирует изучение процессов внедрения программ интеллектуальной интеграции в систему дополнительного профессио-

нального образования университетов мира. Актуальность исследования обусловлена тем, что изучение наращивания интеграционного интеллектуального потенциала в едином пространстве высшего и дополнительного профессионального образования EHEA позволяет определить эффективность применения мировых бенчмаркинг технологий в управлении системами SMART/UNI-Q и сближения университетов мира. Цель исследования – на основе конкретизации результатов обширного дескриптивного анализа бенчмаркинга интеллектуальных интеграций и дескриптивного описания процессов применения бенчмаркинг технологий интеллектуальной интеграции, их научной идентификации и внедрения в отдельных университетах, университетских альянсах и консорциумах выявить общие и специфические показатели устойчивого международного партнерства, влияющие на запрос потребителей международного образования и рынка труда.

Материалы и методы. Впервые в исследованиях бенчмаркинга интеллектуальных интеграций в международной деятельности университетов используется метод дескриптивного анализа. Активные секторы бенчмаркинга SMART/UNI-Q выявлялись на всю совокупность данных, добровольно представленных университетами – участниками проектов австрийского института интеллектуальных интеграций в допандемический период 2017–2020 гг. Доля ключевых участников и доля опубликованных исследований бенчмаркинга анализировалась по странам-участникам. Изменения миссии бенчмаркинга на рынке международного образования анализировались в соответствии с запросами мировых потребителей. Анализ проводился по базам департамента образования ЕС, платформы ETINED и порталов европейских диссертационных обзоров, находящихся в открытом доступе. В качестве точечных индикаторов сравнения использовались данные Европейского ресурсного центра WERGELAND. В исследовании представлен анализ по пяти сегментам бенчмаркинга международной деятельности: транспарентность, разнообразие, «продуктовая линейка», цифровая активность, цифровые инструменты управления. Инфографика модусов показана в реальной, улучшенной и идеальной моделях. Сравнительный анализ использовался и для изучения асинхронизмов академической мобильности в период COVID-кризиса.

Результаты исследования. Полученные результаты исследования демонстрируют низкие показатели эффективности применения бенчмаркинга интеллектуальных интеграций в международном сотрудничестве университетских альянсов. Преобладание и стабильная эффективность в использовании бенчмаркинга имеет место быть в отдельных университетах Европы в периоды активности по реализации новых стратегий международного образования и лишь на короткие периоды, чаще связанные с аккредитацией. Модель преодоления асинхронизмов устойчивого развития в управлении системами SMART/UNI-Q по критерию гарантии качества высшего образования в международном сотрудничестве EHEA не является окончательной и на сегодняшний день может быть описана только через дескриптивные показатели. На фоне экономического кризиса и турбулентности, связанной с пандемией COVID-19, снижение масштабной академической мобильности является неизбежной тенденцией. Однако в связи с увеличением разницы реагирований экономик и менеджмента в сфере высшего профессионального образования между развитыми и менее развитыми странами, а также с усилением общих тенденций экономической интеграции количество академических мигрантов способно повышаться. Психологической проблемой научной миграции стала асинхрония, т. е. неравномерность, возможностей и адаптации в новую цифровой среду университетских консорциумов и их реализаций на практике.

Обсуждение и заключение. Материалы данной статьи будут полезны CEO-директорам международных университетов, руководителям департаментов международной деятельности, сотрудникам национальных офисов ЭРАСМУС, координаторам проектов ЭРАСМУС+, подразделений дополнительного профессионального образования и академической мобильности для разработки перспективных стратегий внешнего и внутреннего бенчмаркинга межуниверситетских проектов интеллектуальных интеграций и управления качеством международной деятельности.

Ключевые слова: международный опыт интеграции в европейском образовании, признание квалификаций, менеджмент качества, бенчмаркинг, дескриптивная модель, асинхронизмы академической мобильности в период COVID-19

Финансирование: Институт перспективных исследований Московского педагогического государственного университета (г. Москва, Российская Федерация); Австрийский институт интеллектуальных интеграций (г. Вена, Австрия).

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Introduction

Our world has changed. Nevertheless, the world has changed more than once. These changes have always affected the university world order. The European Higher Education Area (EHEA) has defined the administrative and intellectual framework for the process of bringing universities together and educational integration of both European and non-European countries since the starting point of the Bologna process[1]. During this challenging time, many higher education systems and, as a consequence, Western European and Eastern European universities, committed themselves to amending and enforcing national legislation in order to fulfill the requirements of the Lisbon Convention on the recognition of qualifications[2] and submit reports relating to new formats of training and cooperation to the Secretariat of the Bologna Process.

At the same time, the preparation of analytical information on a number of processes of intellectual integration in the international education system and indicators relevant to the implementation of the Sustainable Development Goals / SDG4[3], strategies of the European Quality Assurance Register (EQAR)[4] have become priority for European and world university alliances and consortia. The implementation of the sustainable development goals during the COVID crisis required an analysis of best practices.

The development of European integration processes of international education in the ERASMUS strategy also stimulates the research identification of institutional and design models of universities in the implementation of the Sustainable Development Goals / SDG4 as purposeful today [1]. Diversity and "integration with complication" as the main principles of intellectual integration have become the leading philosophy of the international sector in the management of quality systems. Under these conditions, many universities in Western and Eastern Europe are active in building integration potential in the research sector of higher and continuing professional education in EHEA and are interested in measuring the effectiveness of the application of global benchmarking technologies for intellectual integration in the management of SMART/UNI-Q systems.

The authors understand *SMART/UNI-Q systems* as local university systems of internal quality control necessary for the analysis of synchronization and/or asynchrony of the reliable state of affairs and/or vulnerability, risks and development barriers, including those that are in the processes of accounting for the intellectual integration decision-making in education and science with alliances' international partners in EHEA and the export of educational services. Competition for quality and struggle for leadership in world university rankings drew attention of many

[1] European Higher Education Area and Bologna Process [Electronic resource]. Available at: http://www.ehea.info (accessed 15.06.2020). (In Eng.)

[2] Convention on the Recognition of Qualifications Concerning Higher Education in the European Region. Lisbon, 11.IV.1997 [Electronic resource]. Available at: https://www.coe.int/en/web/conventions/full-list/-/conventions/rms/090000168007f2c7 (accessed 15.06.2020). (In Eng.)

[3] Sustainable Development Goals: Knowledge Platform. Available at: https://sustainabledevelopment.un.org (accessed 27.04.2020). (In Eng.)

[4] The European Quality Assurance Register for Higher Education (EQAR) [Electronic resource]. Available at: https://www.eqar.eu (accessed 15.04.2020). (In Eng.)

European universities to benchmarking tools along with the Total Quality Management system (TQM), ISO 9000[5] standardization by the International Organization for Standardization, Balanced Score Card (BSC), etc. By the example of American universities, European university alliances have joined the contests of Performance and Quality Centers of APQC type (American Productivity & Quality Center) in a variety of awards in the categories: benchmarking excellence, benchmarking development, analysis methods for benchmarking studies.

"Benchmarking is a process of identifying, studying and adapting the best practices and experience of other organizations, based on identification methods and analysis, to improve the performance of their own organization"[6]. However, the insufficient application of benchmarking technologies and methods that increase the quality management resources of European university education in the framework of global quality strategies explain the relevance and novelty of interdisciplinary advanced research in the field of management and modelling of quality systems [2–4].

Thus, it is quite logical that the global integration processes in education[7] have outlined a new direction in the "research sector product line" of universities focused on export, exchange and joint scaling of educational services and procedural issues of decision-making on development in the field of recognizing relevant qualifications by the state bodies of the countries that joined the Lisbon Convention in 1997, the Yerevan Communiqué in 2015, and the decisions of the 25th Vienna Session of the European Council Permanent Conference of Education Ministers in 2016[8].

The abbreviation SMART stands for Specific Measurable Attainable Relevant Time-bound and is applicable in order to narrow the focus of understanding general processes in the international education quality management.

In this work, we are talking about benchmarking studies in a structured "dialogue" SMART/UNI-Q at the local level of an institutional independent platform for intellectual integration and only in significant sectors of international cooperation. The above reasons give the authors the grounds to present a thorough overview and analysis of intellectual integration benchmarking technologies in the management of SMART/UNI-Q systems and provide arguments for the descriptive approach.

Literature Review

Worldwide researchers and university benchmarking experts believe that reviews are not yet perfect. Most discussions are not concerned over the definitions of the concept of benchmarking, but are devoted to the problem of benchmarking effectiveness in improving the quality of higher education[9] [5]. The authors of the article agree with this opinion [6; 7]. Without claiming to do a large-scale review of literature, the authors focused on the analysis of recognized and published benchmarking studies in international education and declined to review the world-famous sources. Such an approach is conditioned by the requirements of international education strategies at the present stage, the need to eliminate the preponderance of reviews of classical benchmarking sources as a tool for competitiveness, and the lack of benchmarking reviews in the context of a quality tool for sustainable

[5] Glossary – Guidance on Selected Words Used in the ISO 9000 Family of Standards [Electronic resource]. Available at: https://www.iso.org/files/live/sites/isoorg/files/standards/docs/en/terminology-ISO9000-family.pdf (accessed 15.04.2020). (In Eng.)

[6] Skelton M. The Continuing Value of Benchmarking. APQC; January 2003. (In Eng.)

[7] Riabov-Raiff O., Seybgll A., Sibgatullina I.F., Teriaeva S.A. Multi-Vector European Integration Processes in Education as a Factor of Innovation Economy Stability. In: Europe Facing the Challenges of the Early 21st Century: Collective Monograph ; under general editorship M.E. Rodionova. Moscow: KNORUS; 2017. 272 p. p. 211-219. (In Russ., abstract in Eng.)

[8] Education at the Council of Europe. Skills and Qualifications for Life in a Democracy [Electronic resource]. Available at: https://rm.coe.int/16806ce22e (accessed 17.04.2020). (In Eng.)

[9] Knyazev E.A., Evdokimova Ya.Sh. [Benchmarking for Higher Educational Institutions: An Educational and Methodical Manual]. Moscow: University Book Publ.; 2006. (In Russ.)

international interaction of universities. The targeted programmes of the Council of Europe in the field of education, based on the European Cultural Convention ETS No. 18[10] and the Convention on the Recognition of Qualifications Related to Higher Education in the European Region ETS No. 165[11] and the list of recommendations on issues of responsibility for the effective provision of high-quality education at the universities[12], contain recommendations for comparative studies with a focus on the best practices. However, there are no reviews to rely on in these recommendations. Therefore, the authors rely on comparisons of local strategies and benchmarking results that influence university convergence in EHEA. Firstly, we must note that a special place in the research system for benchmarking of intellectual integrations in international university strategies belongs to narrow framework studies of digital citizenship, linguistic integration, ethics, transparency and honesty of university employees[13] [8].

The key research idea of such benchmarking is considered in terms of actualizing academic honesty and the ability to live in democracy as an ethical value in a modern European university. Benchmarking allows identifying both specific best and specific worst examples from European university life, giving an opportunity to see the duality of the ethical coordinate system of international education. Benchmarking descriptions[14] [9; 10] and quality studies by indicators of activity modes, primarily strengthened the increase of indicators in the SMART-UNI/Q system and the potential of universities in the countries of the Eastern Partnership, Southeast Europe and the Baltic States. It has become fundamental for the researchers of "best international educational practices" to understand the approaches and methods that provide universities with outstanding results, innovative in terms of using technologies and resources that customers and international experts recognize[15] [5; 11; 12]. In Europe, many universities listed in "Webometrics Ranking of World Universities 2020"[16], "RUR World University Ranking"[17], "The Times Higher Education World University Rankings 2020"[18] came to the realization of their innovative mission and are considering developments in the field of quality management of international activities as a necessary condition for their competitiveness, but not as a separate competitive strategy.

The methodology of such studies is approved of by benchmarking strategies and economic development of general and private indicators of university achievements in international cooperation. In the conditions of competitive rivalry, benchmarking al-

[10] European Cultural Convention ETS No. 018. 1954. Available at: https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/018 (accessed 15.04.2020). (In Eng.)

[11] ENIC-NARIC Networks: website. Available at: https://www.enic-naric.net (accessed 15.04.2020). (In Eng.)

[12] ETINED – The Council of Europe Platform on Ethics, Transparency and Integrity in Education [Electronic resource]. Available at: https://www.coe.int/en/web/ethics-transparency-integrity-in-education/home (accessed 15.04.2020). (In Eng.)

[13] Bryzgalina Ye.V. [Bologna Process: Transformation of Values in the Education System]. In: Ethical Regulation in the Academic Environment: Proceedings of the International Scientific-Practical Conference. Moscow State University, 4–5 Dec 2009. Moscow: MAKS Press; 2009. p. 138-143. Available at: https://istina.msu.ru/publications/article/1079938 (accessed 07.06.2020). (In Russ.)

[14] Code of Ethics in Academic Research. European University Institute; 2019. 22 p. Available at: http://www.eui.eu/Documents/ServicesAdmin/DeanOfStudies/CodeofEthicsinAcademicResearch.pdf (accessed 14.05.2020). (In Eng.)

[15] Benchmarking Higher Education System Performance: Conceptual Framework and Data, Enhancing Higher Education System Performance, OECD Paris; 2017. Available at: https://www.oecd.org/education/skills-beyond-school/Benchmarking%20Report.pdf (accessed 17.05.2020). (In Eng.)

[16] Webometrics Ranking of World Universities 2020: Ranking Web of Universities [Electronic resource]. Available at: https://www.webometrics.info/en/Europe (accessed 15.05.2020). (In Eng.)

[17] RUR World University Ranking [Electronic resource]. Available at: https://roundranking.com/ranking/world-university-rankings.html#world-2020 (accessed 15.05.2020). (In Eng.)

[18] The Times Higher Education World University Rankings 2020 [Electronic resource]. Available at: https://www.timeshighereducation.com/world-university-rankings/2020/world-ranking#!/page/0/length/25/sort_by/rank/sort_order/asc/cols/stats (accessed 15.05.2020). (In Eng.)

lowed universities to build their own models of market equilibrium, identify the degree of potential ability of their institutions to cooperate on the world market, and outline vectors of priority investment. It should be understood that the process of conducting university benchmarking analysis, even local, is a costly event that requires not only investment of funds, but also the involvement of additional information and time resources, as well as professionally trained researchers and experts capable not only of strategic development, but also of the implementation of local professional actions, while working in an international team. Here we mean professional international marketing teams that are able to show their competencies in the conditions of friendly integration of education and intellectual integration regarding joint project research work [13]. The researchers term this benchmarking component the "relational" component and, or "trust capital" that consolidates the chances of sustainable cooperation and synchronizes the goals of international projects of university consortia [14]. It would seem that this is an indicator outside the university system, but the practice of international work shows that it is this component that has a significant effect in the organization of benchmarking events and their implementation in general.

One of the annual dissertation reviews of the Technical University of Munich represents benchmarking as a balanced scorecard for an integrated management approach to increase the productivity process of Technical University of Munich [15]. The study of the Netherlands Organization for International Cooperation of Higher Education and the Association for Academic Cooperation in Brussels (the so-called Dutch study) [16] shows the results of comparing university practices of the countries of the Organization for Economic Co-operation and Development OECD (Australia, Denmark, France, Germany, Japan and the Netherlands) according to the general indicator of internationalization. The Dutch study found that over the past decade, international training programmes have expanded significantly, mainly in economics and business, humanities and social sciences. A feature of the Dutch research was the conclusion about the outstanding role of the personality and scientific authority of the leaders of international initiatives and leaders of joint educational programmes that "extend the life" of the programmes and bring them to the level of sustainable international partnership, which is consonant with the idea of friendly integration. The analysis of the presented scientific sources of international management research centers shows that benchmarking achieves its goal in managing SMART/UNI-Q, if the research of the international sector of diversity and integration (D&I) of university employees is included in the management of university integration[19]. The universities of Switzerland and Austria, for example, have taken this path. This important benchmarking research task aims at optimal use of the positive aspects of the local university policy of diversity, heterogeneity and integration achievements to avoid discrimination and form privileged groups in the recruitment of students and teachers, for example, to participate in international joint diploma programmes, internships, joint programmes of career centers, distribution of internal university grants, implementation of ERASMUS + projects.

Most often, universities create D&I (Diversification and Integration) Centers of Competence[20] that fulfill the mission of benchmarking research. Studies are published on the university website, but are not always open access due to the confidentiality and personalization of information of internal structures. However, researchers can present a general report in the "internal" university scientific journals, observing the university ethics and corporate rules [17]. Effective benchmarking in the management of diversity and integration allows the uni-

[19] FIRMENSPEZIFISCHE FORSCHUNGSPROJEKTE: Universität St. Gallen [Electronic resource]. Available at: https://ccdi-unisg.ch/de/unsere-leistungen/firmenspezifische-forschungsprojekte (accessed 27.05.2020). (In Eng.)

[20] Service- und Koordinationsstelle für Fragen der Diversität: Pädagogische Hochschule Oberösterreich [Electronic resource]. Available at: https://ph-ooe.at/de/diversitaet.html (accessed 21.06.2020). (In Germ.)

versity to carry out research and functional examination of educational processes, international experience in interacting with consortia and influence the choice of narrow topics of benchmarking research as a quality technology in bringing universities closer together in a single space of higher and continuing professional education in EHEA. The research potential of D&I benchmarking is widely represented in promoting the inclusive corporate culture of universities [18] and used to improve the intellectual potential of the regions where the universities are located.

In Germany, Austria and the countries of Northern Europe, regional research projects "SMART UNI – SMART REGION" appeared. Similar projects are welcomed by the institutes of advanced research in the Russian Federation and the CIS, for example, the project "Digital University – Digital Region (DUDR)" [19], and in various resource centers, for example, such as The European Wergeland Centre (EWC)[21], that is a European resource center for education in support of intercultural understanding, human rights and democratic citizenship. Note that the Wergeland center is actively involved in the process of increasing resources for the study of university benchmarking. However, the research results of this center play the role of point-based, non-generalizing characteristics and complement the authors' assumption about the descriptive approach to the analysis and implementation of benchmarking technologies in the European higher education space.

The authors of the article paid special attention to benchmarking studies conducted at the Higher School of Economics Research Center of International University Management[22] "(hereinafter referred to as the Center) of the Russian Federation, performed for more than 15 years. The studies show that the improvement and development of management practices of university complexes of the SMART-UNI/Q type based on consulting largely ensured the application of benchmarking techniques in strengthening the system of providing university guarantees for full-fledged academic and educational activities, as well as rating positions of Russian universities in business administration of international projects and the export of educational services. The reports of the Center contain references to the positive benchmarking experience[23] [20]. An example of the activity and effectiveness of the Center's research is the launch of automated systems for organizing and managing the educational process in Russian universities on the basis of a credit-module "non-linear" organization of the educational process; stimulating the mechanism for calculating the salaries of professors; a digital system for monitoring the organization's quality and ensuring the educational process of joint programmes; the organization of educational and methodological work; project-oriented methods for ensuring the quality of the educational process based on the principles of TQM (Total Quality Management); building quality management systems based on the standards of the ISO 9000 series management system; creating expert and analytical centers for ensuring the quality of the educational process of double diploma programmes; project-oriented approach to the organization of the educational process based on the principles of interdisciplinarity and flexibility of organizational educational and scientific structures[24].

The benchmarking effectiveness in classifying universities in European and world rankings and, or non-linear regression of their development are worthy of attention. Most often, the results set out the guidelines for benchmarking in the field of digital machine learning, the principles of benchmarking, assessing the accuracy and validation of the models, links to existing repositories and contests, and also discuss benchmarking goals and limitations [17].

[21] The European Wergeland Centre: website [Electronic resource]. Available at: https://theewc.org (accessed 27.06.2020). (In Eng.)

[22] National Research University Higher School of Economics: website [Electronic resource]. Available at: https://www.hse.ru/en (accessed 27.06.2020).

[23] Knyazev E.A., Evdokimova Ya.Sh. [Benchmarking for Higher Educational Institutions: An Educational and Methodical Manual].

[24] Ibid.

Undoubtedly, benchmarking is the key to progress in the field of digital education, as it allows an unbiased comparison of alternative teaching methods. Although, there is one significant problem and that is non-finality, incompleteness of benchmarking performance indicators for sound statistical comparative analysis. Therefore, the authors of the article can only identify absolute data on short and medium-term periods of university activity and identify the "main players" in benchmarking to analyze their share in the overall European process of research on intellectual integration.

The review showed that all international studies of benchmarking analysis of intellectual integrations in the SMART-UNI/Q management system are relevant, despite the fact that benchmarking is only one of the tools to achieve or improve the quality, and to improve processes and products of international cooperation. Nevertheless, the research patterns remained descriptive. At the same time, the review allowed us to make a bold statement that the benchmarking methodology itself sets benchmarks for quality. Indeed, the main thing in benchmarking is the choice of a standard, best practice for subsequent adaptation in the activities of a real university and, or, a real university alliance that has concluded a cooperation agreement in the framework of, for example, the implementation of the ERASMUS+ project. According to what principles, this standard is selected is the internal affair of a university or an alliance, as, incidentally, is the very understanding of quality. However, in conditions of increasing competition and globalization processes, Western European and Eastern European classical and innovative universities have to look for some consistent, common to all of them concepts and quality criteria, even if the approach to the description of the benchmarking research model is inconclusive. Nevertheless, it was precisely the inconclusiveness of the methods and indicators of European research that gave the authors an opportunity to move on in search of the analysis format and its indicators. This does not mean that the researchers neglected the rule of statistical accuracy; in this case, the researchers relied only on what they could trust in reality without claiming to draw final conclusions. Indeed, the study largely depends on the fact whether the university has the SMART/UNI-Q quality assurance system and internal university guarantees of the quality of international activities, including formal educational activities (for example, double degree programmes, international master's programmes) and initiatives related to informal educational practices (for example, projects of multicultural integrated linguistic education of university employees or benchmarking internship practices in continuing education programmes). The examples considered in the review prove that modern universities in Europe face qualitatively new organizational and managerial issues that require solutions in the very near future.

Materials and Methods

Analyzing intellectual integration benchmarking in the management of SMART/UNI-Q systems, we used the descriptive approach to the quality of international university activities within the European Higher Education Area EHEA. The research results were examined in five sectors of international cooperation: innovative culture and transparency (sector 1); intellectual integration and diversity (sector 2); "product line" and international laboratories (sector 3); digital activity (sector 4); digital management tools (sector 5).

The performed descriptive analysis assumed the use of benchmarking indicators of variations for constructing infographics, summarizing the results obtained on local samples and the entire data set, analyzing the comparison of research results in the benchmarking segments selected by review (Fig. 1) and for determining the degree of "real" difference. A descriptive analysis of the relationships between sectors aimed at defining the intensity and strength of the variables to determine at what point in the graph the "real" university and the "ideal" university are in the averaged values.

The study also relied on recognized comparative methods, benchmarking analysis techniques, which allow us to present infographics by the share of key benchmarking

research participants: universities, university alliances and consortia, specialized centers of the EU Department of Education, private institutions or agencies for the medium term (Fig. 2); the percentage of published European benchmarking studies as a percentage of countries available on open EU platforms (Fig. 3); ideal profile of requests for benchmarking international activities by sector and actual indicators and infographic of integration of published studies into the descriptive benchmarking model by sectors and indicators in the "real, improved and ideal matrices" (Fig. 4).

The Austrian Institute for Intellectual Integrations[25], which has the status of an independent organization specializing in the organization of academic partnerships and benchmarking practices in international postgraduate programmes, acted as an international educational organization, on the platform of which the analysis was carried out. The study examined the experience of only those universities that were participants in international partnerships, international research grant projects and internships, as well as postgraduate education programmes from 2017 to 2020. The research geography is rather small, but, in our opinion, it reflects the university world order of scientific diplomacy in the benchmarking research sector: Austria, the Czech Republic, Germany, Kazakhstan, Kyrgyzstan, Romania, the Russian Federation, Slovakia and Spain.

The expert group consisted of international experts who have had practical experience in comparative research in the above territories and in the UK and the USA and are interested in the scientific and methodological development of benchmarking studies for the universities' international relations departments and ERASMUS national offices.

Sectoral methods were chosen to be used as identification indicators (we admit that this was the most difficult moment in the preparation of the study): analysis of reorientation of university strategies in order to conquer new territorial markets, expand the "product line" of international cooperation; the graphical method of combinational polygons of "new products and services"; descriptive technologies for creating new international laboratories, more adapted to crisis events in digital reality and digital transformation of the labor market. All comparison results were analyzed focally and only in the context of indicators of sustainability of international cooperation and joint educational projects.

Information resources were replenished with data from the analytical reports of the Council of Europe Education Department[26] and the open access portal for European dissertation reviews[27]. Equally important for us were the analytical data presented on the websites of universities participating in benchmarking research, data from ENIC – the European Network of Information Centers in the European Region and National Information Centers for the Recognition of Scientific Titles ENIC-NARIC[28], ERASMUS national offices and several municipal Austrian organizations active in implementing strategies for integrating education and science in their regions, for example, the Public Administration Institute in Linz IKW[29] [21; 22]. The analysis also used platform ETINED[30] data, which is a platform of a network of specialists appointed by the states – parties to the European Cultural Convention and which

[25] Institut für intellektuelle Integration: website [Electronic resource]. Available at: https://www.rbs-ifie.at (accessed 27.06.2020). (In Eng.)

[26] The Council of Europe Education Department [Electronic resource]. Available at: https://www.coe.int/en/web/education/home (accessed 15.06.2020). (In Eng.)

[27] The DART-Europe E-theses Portal: website [Electronic resource]. Available at: http://www.dart-europe.eu; Open Access Theses and Dissertations: website [Electronic resource]. Available at: https://oatd.org; The Networked Digital Library of Theses and Dissertations (NDLTD): website [Electronic resource]. Available at: http://www.ndltd.org (accessed 15.06.2020). (In Eng.)

[28] ENIC-NARIC Networks. Available at: https://www.enic-naric.net (accessed 15.04.2020). (In Eng.)

[29] Institut für Kommunalwissenschaften (IKW) Linz: website [Electronic resource]. Available at: http://www.ikw.co.at (accessed 15.06.2020). (In Eng.)

[30] ETINED – The Council of Europe Platform on Ethics, Transparency and Integrity in Education. Available at: https://www.coe.int/en/web/ethics-transparency-integrity-in-education/home (accessed 15.04.2020). (In Eng.)

solves the problem of exchanging information and best practices in ethics and honesty in education, with particular emphasis on combating corruption and fraud in education and research. Finally, we used data from the European Resource Center "WERGELAND" on education in support of intercultural understanding, human rights, and democratic citizenship as point indicators for comparison, which allowed us to distinguish the innovative culture sector of the study participants. The authors of the article did not aim to publish the "absolute data" of specific universities and are loyal to the personification of these data.

At the peak of the pandemic COVID-19, a group of German (Sigmund Freud Privat Universität, Berlin, Germany, Department of Science) and Slovak researchers (Comenius University in Bratislava, Faculty of Education) together with colleagues from Russia (Kazan Federal University) studied the state and dynamics of the quantitative relationships between educational and scientific mobility in the short-term period of the pandemic crisis events on the platform of the Institute for Intellectual Integrations in Vienna (Austria)[31] [6; 7]. The data concerned the project "freezing" and the "non-arrival" of scientists (Fig. 5 and Fig. 6) and education leaders from the CIS territories to the Institute for Intellectual Integrations (Austria) to implement postgraduate education modules for partner university teachers, research grant projects and joint publications, planned internships together with territorial state scholarship funds, professional practices for students in the benchmarking format [23]. We analyzed only programmes planned for 2020, which, under agreements with a consortium, could not be transformed into online mode in the short term, since they concern practical communication on the transfer of scientific and educational technologies and modules of informal education in the field of international postgraduate programmes in the following areas: economics and management of international education, inclusive education and rehabilitation, cognitive urban studies and architecture, world regional studies. We publish some local infographics without limiting the generality in collecting and storing information, without threatening personal data.

Results

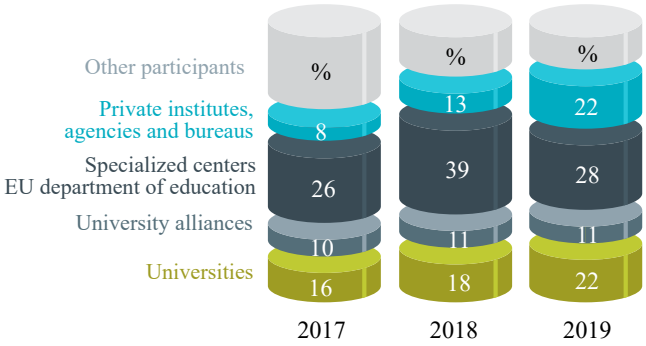
The effectiveness of benchmarking research in the international activities of universities can be improved by creating, maintaining and managing systems of interconnected SMART processes aimed at intellectual integration. This means that universities should strive to combine the processes of creating benchmarking tools to track the compliance of these tools or services to their own needs, including the ones in international politics. Only with a systematic approach to benchmarking research on intellectual integration in the management of international education projects it will be possible to fully utilize feedback from a local order to develop strategic plans for international activities and integrated quality plans in each of the selected sectors (Fig. 1): innovative culture and transparency (sector 1); intellectual integration and diversity (sector 2); the product line and international laboratories (sector 3); modes of digital activity in international education (sector 4); and digital tools for managing the quality of international activities (sector 5).

F i g. 1. Relevant benchmarking research sectors for the entire set of data from open databases on identified research requests

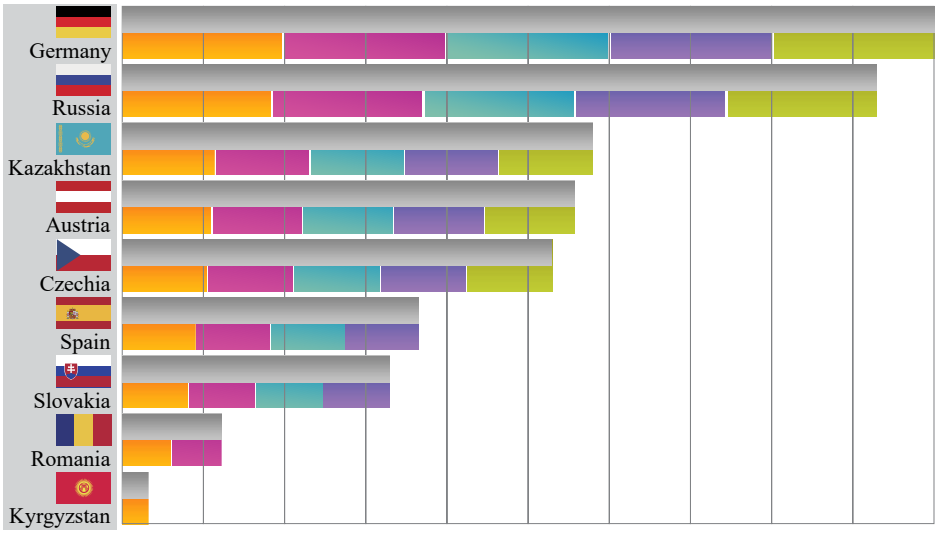
[31] Riabov-Raiff O., Seybgll A., Sibgatullina I.F., Teriaeva S.A. Multi-Vector European Integration Processes in Education as a Factor of Innovation Economy Stability.

The bank of published research algorithmized benchmarking programmes in 2017–2019 provided by universities and other participants, declared in the analysis of the geographical sector, is stable and has a positive upward trend. Fig. 2 shows the shares of key participants in published benchmarking studies in the medium term. It is clear from Fig. 2 that universities and special centers funded by the grant programmes of the Council of Europe Education Department are stable customers for benchmarking research. University alliances and consortia are least likely to show interest in this tool, while private agencies and institutes show visible instability, and their participation depends on targeted funding and the sustainability of partnerships with universities. It was found that there are no published studies of intellectual integration benchmarking carried out as part of ERASMUS programmes and projects. This circumstance attracts attention and is indicated in the goal setting of the fund for the next decade. In case of the "other participants", we are talking about private research, research by the ministries of science, the UN and other organizations, whose activities aim at wide ranges of implementation of the Sustainable Development Goals and the strategies of the European Quality Assurance Register EQAR.

The share of published benchmarking studies by country in the same period (Fig. 3) suggests a pronounced marketing policy for the quality of international university activities using benchmarking in Germany and the Russian Federation, equal for all five sectors.



F i g. 2. Shares of key participants in European published benchmarking studies (2017–2019), %



F i g. 3. Shares of published studies of benchmarking of intellectual integration by country and sector, 2017–2019

Universities in Kazakhstan, the Republic of Austria and the Czech Republic also follow the benchmarking idea of the sustainability of international projects, but with less intensity and shorter duration, however, just like the indicated leaders, in all five sectors. The distribution of shares by decreasing function between universities in Spain and Slovakia also reveals a decrease in interest in research in sector 3: the "product line" and international laboratories, which may subsequently affect a decrease in the export of competitive educational and research products and services for use in joint programmes in international consortia. However, descriptive analysis excluded statistics on the university educational services export. The analysis of the absolute share of quantitative data showed that the universities of Romania and Kyrgyzstan, as active participants in ERASMUS programmes, have become "visible" in European benchmarking research statistics over the past three years on a par with other, but in a significantly smaller number of sectors. The general trend of these universities has been the desire for sustainable partnership and integration processes in sector 1 – "innovative culture and transparency" (Romania) and sector 3 – "product line and international laboratories" (Kyrgyzstan), which generally increases the need for benchmarking and promotes academic exchange.

Figure 4 shows a real and an ideal profile of university demands identified by the activity of benchmarking studies of international activities by sector and relevant indicators corresponding to SMART/UNI-Q strategies in the pre-pandemic period. It was originally planned to apply the method of analyzing hierarchies and measure the value of significant coefficients by constructing a scale of the relative importance of activities in the selected sector and define priority vectors. However, the drastic changes introduced by the pandemic situation and the use of a descriptive strategy made it possible to use the scales of subjective control and priority vector identification, superimposing these data on the picture of the ideal vision of the best practice and comparing the selected indicators with each other to identify the degree of importance of each of them. Based on the obtained matrix of comparisons, the relative value of the degree of importance of the indicator was found to obtain an assessment of the partnership sustainability with an orientation to the ideal. Data processing was performed automatically using the MS Excel programme. In sector 1 (innovative culture and transparency), the following active indicators are distinguished: scientific diplomacy (1), linguistic integration (2), social initiatives of university employees. Sector 2 (intellectual integration and diversity) includes "points" of intellectual concentration of ERASMUS strategies "inside" and "around", and applications to NARIC. In sector 3 (the "product line" and international laboratories), new "products" and services, export of educational services, and international research teams are distinguished. In sector 4 (modes of digital activity) one can see partner digital repositories, a network of partner start-ups, tools for dealing with crisis conditions. Sector 5 (digital instruments and the unification of digital boundaries) is represented by a multilingual international platform for online education, a multilingual student research platform, and digital instruments for managing the infrastructure of international cooperation.

F i g. 4. Integration of research into a descriptive benchmarking model by sector and indicator in a "improved, real and ideal matrix"

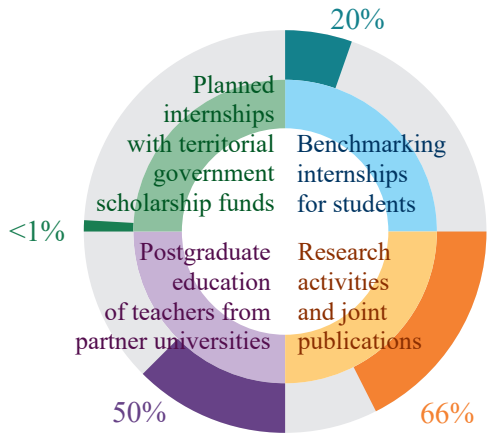
Figure 4 also reflects the infographic of integration of published studies into a descriptive benchmarking model by sectors and indicators in the "real, improved and ideal matrices" corresponding to the idea of identifying priority vectors of international activity by averaged values. We must note that this is not a matrix whose values correspond to a real university or consortium, but a flexible matrix of general indicators of priority vectors that can change at the most unpredictable and difficult times. This is the advantage of a descriptive approach to reviewing benchmarking studies of international activities.

Moreover, the authors of the article were interested in researching the process of academic mobility [24; 25] using the example of benchmarking internships and professional practices. Here we are to note again that only programmes planned for 2020 were analyzed (Fig. 5 and Fig. 6), that within the framework of agreements with a consortium could not be transformed into an online mode in the short term, since they are associated with practical communication on the transfer of scientific educational technologies and modules of informal education in the field of international postgraduate programmes in the following areas: economics and management of international education, inclusive education and rehabilitation, cognitive urban studies and architecture, world regional studies. We publish some pandemic period local infographics presented by the Austrian Institute for Intellectual Integrations to their academic partners without limiting the generality in collecting and storing information, without threatening personal data.

The analysis of the graphs in Fig. 5 and Fig. 6 shows the clear contraction, lack of implementation and downward trend in quantitative data for the intellectual integration and mobility sectors in the short term. The most vulnerable during the pandemic turned out to be international programmes of planned internships in conjunction with territorial scholarship state funds and international programmes of professional practice for students. Research projects and postgraduate professional development by academic staff of the consortium are the least vulnerable programmes; therefore; they could be transferred into the partial or complete online format. This study is local in nature and does not aim at generalizing conclusions; however, it clearly shows a picture of the real impact of the social consequences of the COVID-19 pandemic on international cooperation between universities for the benefit of strengthening the intellectual landscape of the counties' economies.

Discussion and Conclusion

The results of the analysis allow to conclude that the development and updating of the quality management technology of the EU universities' international activities



F i g. 5. Ratio of planned, "frozen" and implemented academic mobility programmes for 2020

F i g. 6. Ratio of planned and actual participants in international intellectual integration programmes and projects in percentage (by sectors)

forms a demand for relevant benchmarking studies and, especially, for the technological skills of its implementation. In general, European universities and other participants are changing the mission of benchmarking in the international education market to meet the demands of global consumers. Recognized leading tools for achieving the desired quality as a competitive advantage include Strategic Planning, Total Quality Management, Business Process Reengineering, Continuous Quality Improvement, and Balanced Score Card.

The presented review and analysis of published studies show that universities use the benchmarking method both as a tool for competitive advantage and as a tool for building sustainable partnerships. This allows worldwide international organizations to hope that universities not only comply with, but also actively influence subsequent amendments to European documents on international cooperation. Continuous improvement in this area of influence relates to the problem of tracking the emerging and constantly changing priority vectors of benchmarking research in various quality sectors, as well as their reliability. No less important is the involvement in research of structural units of universities that carry out strategic management of internationalization processes [26; 27], adhering to the European policy of diversity.

Against the background of a sharp halt in academic mobility programmes during the pandemic, universities are forced to change the teaching formats of professional training, including educational and professional practices, rapidly. Distance learning had been a norm even before the pandemic; however, it was only during the pandemic that distance learning became the main real form of learning radically changing the communication of professors and students. The global COVID-19 pandemic has dramatically affected the quality of higher education, postgraduate adult education and human resources development to varying degrees. The new format of educational design is now understood as quite necessary, but the issue of mobile academic exchange and targeted scientific and educational collaboration of universities is still on the agenda [28].

The new sector of academic mobility has become the sector of online communications with the use of a managed electronic resource, international online seminars, plenary discussions and preparation of publications. However, this conception, associated with selected academic work in a distance-learning environment, still requires an understanding of aspects associated with professional training in the e-learning environment in general. How do “remote” guest professors “engage students in their “authentic charismatic” e-learning environment? How can teaching or research modelling and digital mentoring be “reflected” in the learning environment to support the development of a learning and/or research community that includes the participation of “in-house” and foreign colleagues? How can explicit interactive actions be introduced into the digital distance-learning environment and influence the digital economy in the future? These and other questions set new horizons for discussion, in which answers are still being sought. Amid the economic crisis and turbulence associated with the COVID-19 pandemic, a decline in large-scale academic mobility is an inevitable trend. However, due to the growing difference in the responses of economies and management in the field of higher vocational education between developed and less developed countries, as well as with the strengthening of general trends in economic integration, the number of academic migrants is likely to increase. The psychological problem of scientific migration has become asynchrony, that is, unevenness, opportunities and adaptation in the new digital environment of university consortia and their implementation in practice.

The integration of benchmarking research into the general model showed that it has an inconclusive, i.e. descriptive nature. Noteworthy are the low performance indicators of the application of intellectual integration benchmarking in the international cooperation of university alliances. The predominance and stable effectiveness in the use of benchmarking takes place in some universities in Europe during the periods of activity in implementing new strategies of international education, but only for limited

periods that depend on grant funding. The model for overcoming sustainable development asynchrony in the management of SMART/UNI-Q systems by the criterion of guaranteeing the quality of higher education in EHEA international cooperation is also not final and can be presented only through descriptive indicators.

In the descriptive model, intellectual integration benchmarking can be used to promote incentives, to analyze the sustainability of external partnerships on the world market and to increase international projects of the type of "integration with complication". In this case, the buildup of quality resources – the degree of compliance of the characteristics inherent in the object with the established requirements – can be stable. The descriptiveness of the benchmarking model makes it possible to define the implementation of the principles of sustainable development as a complex and ambiguous process of maintaining equilibrium in the international educational space in times of crisis. The descriptive benchmarking model is capable of influencing the results of international project and other interaction between EU universities, although it requires a study of compatibility with other technologies for assessing the quality of international education processes.

REFERENCES

1. Caeiro S., Sandoval Hamón L.A., Martins R., Bayas Aldaz C.E. Sustainability Assessment and Benchmarking in Higher Education Institutions – A Critical Reflection. *Sustainability*. 2020; 12(2):543. (In Eng.) DOI: https://doi.org/10.3390/su12020543

2. Gunasekaran A. Benchmarking in Education. *Benchmarking: An International Journal.* 2002; 9(1). (In Eng.) DOI: https://doi.org/10.1108/bij.2002.13109aaa.001

3. Moise M.I., Căbulea L., Popa M., Mihalache S.-Ş. On the Role of Benchmarking in the Higher Education Quality Assessment. *Annales Universitatis Apulensis Series Oeconomica.* 2009; 11(2):850-857. Available at: http://www.oeconomica.uab.ro/upload/lucrari/1120092/27.pdf (accessed 17.06.2020). (In Eng.)

4. Tasopoulou K., Tsiotras G. Benchmarking Towards Excellence in Higher Education. *Benchmarking: An International Journal*. 2017; 24(3):617-634. (In Eng.) DOI: https://doi.org/10.1108/BIJ-03-2016-0036

5. Sergienko O.I., Suvorova Y.S., Fedyushina T.A. A Technological Benchmarking to Identify the Best Available Techniques: A Comparative Analysis of the European and Russian Experience. *Nauchnyy zhurnal NIU ITMO. Seriya «Ekonomika i ekologicheskiy menedzhment»* = Scientific Journal of the NRU ITMO. Series "Economics and Environmental Management". 2015; (3):414-428. Available at: http://economics.ihbt.ifmo.ru/file/article/13931.pdf (accessed 17.05.2020). (In Russ., abstract in Eng.)

6. Riabov O. Targeted Landmarks of Educational Benchmarking in Professional Training of Designers. *Vestnik KRSU* = Bulletin of the Kyrgyz-Russian Slavic University. 2018; 18(10):109-114. Available at: http://vestnik.krsu.edu.kg/archive/22/586 (accessed 30.05.2020). (In Russ., abstract in Eng.)

7. Sibgatullina I.F., Nugumanova L.N. Informal Education and Benchmarking in the Learning Cities System. In: Avanesov S.S., Speshilova E.I. (ed.). Visual Anthropology – 2019. City-University: Living Space and Visual Environment. Proceedings of the 3rd International Scientific Conference; 2019 Aug 28-30; Velikiy Novgorod. Velikiy Novgorod: Yaroslav-the-Wise Novgorod State University Press; 2020. p. 489-499. (In Russ., abstract in Eng.) DOI: https://doi.org/10.34680/visant-2020-489-499

8. Miscellany. The Bucharest Declaration Concerning Ethical Values and Principles for Higher Education in the Europe Region. *Higher Education in Europe*. 2004; 29(4):503-507. (In Eng.) DOI: https://doi.org/10.1080/03797720500083922

9. Brennecke P. Academic Integrity at MIT. A Handbook for Students. MIT Press; 2012. 36 p. Available at: http://web.mit.edu/academicintegrity/handbook/handbook.pdf (accessed 14.05.2020). (In Eng.)

10. Bretag T. (ed.) Handbook of Academic Integrity. Singapore: Springer Reference; 2016. 1097 p. Available at: https://www.springer.com/gp/book/9789812870971 (accessed 14.05.2020). (In Eng.)

11. Madsen D.Ø., Slåtten K., Johanson D. The Emergence and Evolution of Benchmarking: A Management Fashion Perspective. *Benchmarking: An International Journal.* 2017; 24(3):775-805. (In Eng.) DOI: https://doi.org/10.1108/BIJ-05-2016-0077

12. Evdokimova Y.S. Benchmarking as a Methodology for Improvement Russian University Management. *Universitetskoye upravleniye: praktika i analiz* = University Management: Practice and Analysis. 2005; (4):27-38. Available at: https://www.umj.ru/jour/article/view/223/224 (accessed 07.06.2020). (In Russ., abstract in Eng.)

13. Mehta N., Diwakar N., Arya R. Evaluating Comparative Performance of Indian Engineering Educational Institutes Based on TQM Criteria for Internal Benchmarking. *Benchmarking: An International Journal.* 2019; 26(1):221-245. (In Eng.) DOI: https://doi.org/10.1108/BIJ-09-2017-0250

14. Masyuk N.N., Petrishchev P.V. Benchmarking as an Innovational Way of Increasing of Competitiveness of a University on the International Market of Educational Services. *Sovremennye problemy nauki i obrazovaniya* = Modern Problems of Science and Education. 2012; (6). Available at: https://www.science-education.ru/pdf/2012/6/371.pdf (accessed 12.05.2020). (In Russ., abstract in Eng.)

15. Langer T. [Benchmarking und Balanced Scorecard als integrierter Managementansatz zur Verbesserung der Prozessperformance – dargestellt am Beispiel der UHT-Milch-Produktion]. Fakultät Wissenschaftszentrum Weihenstephan für Ernährung, Landnutzung und Umwelt der Technischen Universität München zur Erlangung des akademischen Grades eines Doktors der Wirtschaftswissenschaften (Dr. Oec.) genehmigten Dissertation; 2005. Available at: https://studylibde.com/doc/18478017/balanced-scorecard-benchmarking (accessed 17.05.2020). (In Germ.)

16. Wende M.C. van der. Internationalising the Curriculum in Dutch Higher Education: An International Comparative Perspective. *Journal of Studies in International Education*. 1997; 1(2):53-72. (In Eng.) DOI: https://doi.org/10.1177/102831539700100204

17. Straub R. [Benchmarking – Eine Darstellung des Benchmarking als modernes Instrument zur Leistungsverbesserung]. Universität Zürich, Fakultät für Wirtschaftswissenschaft, Dissertation zur Erlangung der Würde eines Doktors der Wirtschaftswissenschaften, 1997. Available at: https://www.zvab.com/Benchmarking-Darstellung-modernes-Instrument-Leistungsverbesserung-Dissertation/15984060137/bd (accessed 27.05.2020). (In Germ.)

18. Vančová A., Nagyová K. Applied Behavioral Analysis Therapy in Special Education Practice. In: CBU International Conference Proceedings 2019. Current Issue. 2019; 7. (In Eng.) DOI: https://doi.org/10.12955/cbup.v7.1438

19. Merzon E.E., Riabov O.R. Resonant Mechanisms of Territory Branding in the DUDR system: Smart University – Smart Region. In: S. S. Avanesov, E. I. Speshilova (eds.) Visual Anthropology – 2019. City-University: Living Space and Visual Environment. Proceedings of the 3rd International Scientific Conference; 2019 Aug 28-30; Velikiy Novgorod. Velikiy Novgorod: Yaroslav-the-Wise Novgorod State University Press; 2020. p. 430-438. (In Russ., abstract in Eng.) DOI: https://doi.org/10.34680/visant-2020-430-438

20. Mihajlova E.A. [Benchmarking Basics: Internal Comparative Analysis]. *Menedzhment v Rossii i za rubezhom* = Management in Russia and Abroad. 2001; (4). Available at: https://www.cfin.ru/press/management/2001-4/10.shtml (accessed 12.06.2020). (In Russ.)

21. Klug F. [Föderalismus: Was kostet uns der Föderalismus? Und was bringt er? Bd. 132]. Linz; 2018. 103 p. Available at: http://www.ikw.co.at/PDFs/IKW132.pdf (accessed 27.06.2020). (In Germ.)

22. Klug F. (Hrsg.). [Gegenwart und Zukunft der Institutionen der öffentlichen Kontrolle. Bd. 114]. Linz; 2004. 198 p. Available at: http://www.ikw.co.at/PDFs/IKW114.pdf (accessed 27.06.2020). (In Germ.)

23. Sibgatullina-Denis I., Vančová A., Komarova L., Kirsha A. Asynchronism of Academic Mobility Processes and the Intellectual Integration Crisis in the Context of the COVID-19 Pandemic Events. In: Ziganchina E., Gibadulin R., ed. Modern Labor Migration. Social Issues and Challenges of New Time: collective monograph. Moscow: MPSU; 2020. p. 22-27. Available at: https://drive.google.com/file/d/1MVYRWIsiwVhSwXfon6Z0viptMY9RRGCV/view (accessed 07.10.2020). (In Eng.)

24. Teichler U. Academic Mobility and Migration: What We Know and What We Do Not Know. *European Review*. 2015; 23(S1):S6-S37. (In Eng.) DOI: https://doi.org/10.1017/S1062798714000787

25. Popa D., Knezevic R. Academic Mobility Policies in Higher Education of Bosnia and Herzegovina. *Revista de Pedagogie = Journal of Pedagogy*. 2018; (1):159-171. (In Eng.) DOI: https://doi.org/10.26755/RevPed/2018.1/159

26. Yemini M., Sagie N. Research on Internationalisation in Higher Education – Exploratory Analysis. *Perspectives: Policy and Practice in Higher Education*. 2016; 20(2-3):90-98. (In Eng.) DOI: https://doi.org/10.1080/13603108.2015.1062057

27. Robson S., Wihlborg M. Internationalisation of Higher Education: Impacts, Challenges and Future Possibilities. *European Educational Research Journal*. 2019; 18(2):127-134. (In Eng.) DOI: https://doi.org/10.1177/1474904119834779

28. Alemu S.K. Transnational Mobility of Academics: Some Academic Impacts. *Center for Educational Policy Studies Journal*. 2020; 10(2):77-100. (In Eng.) DOI: https://doi.org/10.26529/cepsj.464

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About the authors:

Irene Sibgatullina-Denis, Director for International Programs of Science and Education, Institute for Intellectual Integrations (7/7 Skodagasse, Vienna 1080, Austria), Affiliated Professor of Economics and Ma-

nagement Department, Elabuga Institute (Branch), Kazan (Volga Region) Federal University (18 Kremlyovskaya St., Kazan 420008, Russian Federation), Research Professor, Moscow Pedagogical State University (1/1 Malaya Pirogovskaya St., Moscow 119991, Russian Federation), Dr.Sci. (Psychol.), Professor, **ORCID: https://orcid.org/0000-0001-5149-6139**, **Researcher ID: E-1795-2019**, office@rbs-ifie.at

Oscar R. Riabov, General Director, General Expert of the Bureau of Urban Studies, Economics and Psychology, Institute for Intellectual Integrations (7/7 Skodagasse, Vienna 1080, Austria), Visiting Professor, Kazan (Volga Region) Federal University (18 Kremlyovskaya St., Kazan 420008, Russian Federation), Research Professor, Moscow Pedagogical State University (1/1 Malaya Pirogovskaya St., Moscow 119991, Russian Federation), Cand.Sci. (Psychol.), **ORCID: https://orcid.org/0000-0002-5556-081X**, **Researcher ID: K-9123-2018**, office@rbs-ifie.at

Elena E. Merzon, Director of Elabuga Institute (Branch), Kazan (Volga Region) Federal University (18 Kremlyovskaya St., Kazan 420008, Russian Federation), Cand.Sci. (Ped.), Associate Professor, **ORCID: https://orcid.org/0000-0001-7708-2946**, **Scopus ID: 55931033300**, **Researcher ID: Y-3541-2018**, elena.merzon@kpfu.ru

Alica Vančová, Head of the Institute of Special Education Studies, Faculty of Education, Comenius University (6 Šafárikovo námestie, Bratislava 814 99, Slovakia), Dr.Sci. (Ped.), Professor, **ORCID: https://orcid.org/0000-0001-6885-4166**, vancova@fedu.uniba.sk

Contribution of the authors:

Irene Sibgatullina-Denis – leadership and development of the research project; the formulation of the research concept and a review of foreign literature; description of the methods; information collection; scientific editing of the text.

Oscar R. Riabov – structuring sections and texts of the article; identification of Internet resources; co-author of the descriptive model; analysis of results; conceptual development of graphic illustrations of the article; verification of research results; preparation of the conclusion text.

Elena E. Merzon – structuring literature review; analysis of the data obtained; designing tables; writing a working version of the article, identification of terminology and concepts used.

Alica Vančová – a review of dissertation research on benchmarking in Eastern Europe; checking abbreviations, graph analytics; leadership of express research in the period of COVID-19.

All authors have read and approved of the final manuscript.

СПИСОК ИСПОЛЬЗОВАННЫХ ИСТОЧНИКОВ

1. Sustainability Assessment and Benchmarking in Higher Education Institutions – A Critical Reflectio / S. Caeiro, L. A. Sandoval Hamón, R. Martins, C. E. Bayas Aldaz. – DOI 10.3390/su12020543. – Текст : электронный // Sustainability. – 2020. – Vol. 12, issue 2. – URL: https://www.mdpi.com/2071-1050/12/2/543 (дата обращения: 17.06.2020).

2. Gunasekaran, A. Benchmarking in Education / A. Gunasekaran. – DOI 10.1108/bij.2002.13109aaa.001. – Текст : электронный // Benchmarking: An International Journal. – 2002. – Vol. 9, no. 1. – URL: https://www.emerald.com/insight/content/doi/10.1108/bij.2002.13109aaa.001/full/html (дата обращения: 17.06.2020).

3. On the Role of Benchmarking in the Higher Education Quality Assessment / M. I. Moise, L. Căbulea, M. Popa, S.-Ş. Mihalache // Annales Universitatis Apulensis Series Oeconomica. – 2009. – Vol. 11, no. 2. – Pp. 850–857. – URL: http://www.oeconomica.uab.ro/upload/lucrari/1120092/27.pdf (дата обращения: 17.06.2020).

4. Tasopoulou, K. Benchmarking Towards Excellence in Higher Education / K. Tasopoulou, G. Tsiotras. – DOI 10.1108/BIJ-03-2016-0036 // Benchmarking: An International Journal. – 2017. – Vol. 24, no. 3. – Pp. 617–634. – URL: https://www.emerald.com/insight/content/doi/10.1108/BIJ-03-2016-0036/full/html (дата обращения: 17.06.2020).

5. Сергиенко, О. И. Технологический бенчмаркинг для идентификации наилучших доступных технологий: сравнительный анализ европейского и российского опыта / О. И. Сергиенко, О. И. Суворова, Т. А. Федюшина // Научный журнал НИУ ИТМО. Серия: Экономика и экологический менеджмент. – 2015. – № 3. – С. 414–428. – URL: http://economics.ihbt.ifmo.ru/file/article/13931.pdf (дата обращения: 17.05.2020). – Рез. англ.

6. Рябов, О. Р. Целевые ориентиры образовательного бенчмаркинга в профессиональной подготовке дизайнеров / О. Р. Рябов // Вестник КРСУ. – 2018. – Т. 18, № 10. – С. 109–114. – URL: http://vestnik.krsu.edu.kg/archive/22/586 (дата обращения: 30.05.2020). – Рез. англ.

7. Сибгатуллина, И. Ф., Информальное образование и бенчмаркинг в системе обучающихся городов / И. Ф. Сибгатуллина, Л. Н. Нугуманова. – DOI 10.34680/visant-2020-489-499 // Визуальная антропология – 2019. Город-университет: жизненное пространство и визуальная среда: материалы III Междунар. науч.

конф., 28–30 августа 2019 г., Великий Новгород / под ред. С. С. Аванесова, Е. И. Спешиловой. – Великий Новгород: Новгородский государственный университет имени Ярослава Мудрого, 2020. – С. 489–499. – URL: https://www.novsu.ru/file/1609597 (дата обращения: 30.05.2020). – Рез. англ.

8. Miscellany. The Bucharest Declaration Concerning Ethical Values and Principles for Higher Education in the Europe Region / Miscellany. – DOI 10.1080/03797720500083922 // Higher Education in Europe. – 2004. – Vol. 29, issue 4. – Pp. 503–507. – URL: https://www.tandfonline.com/doi/abs/10.1080/03797720500083922 (дата обращения: 30.05.2020).

9. Brennecke, P. Academic Integrity at MIT. A Handbook for Students / P. Brennecke. – MIT Press, 2012. – 36 p. – URL: http://web.mit.edu/academicintegrity/handbook/handbook.pdf (дата обращения: 14.05.2020).

10. Bretag. T. (ed.) Handbook of Academic Integrity. Singapore : Springer Reference, 2016. – 1097 p. – URL: https://www.springer.com/gp/book/9789812870971 (дата обращения: 14.05.2020).

11. Madsen, D. Ø. The Emergence and Evolution of Benchmarking: A Management Fashion Perspective / D. Ø. Madsen, K. Slåtten, D. Johanson. – DOI 10.1108/BIJ-05-2016-0077 // Benchmarking: An International Journal. – 2017. – Vol. 24, no. 3. – Pp. 775–805. – URL: https://www.emerald.com/insight/content/doi/10.1108/BIJ-05-2016-0077/full/html (дата обращения: 14.05.2020).

12. Евдокимова, Я. Ш. Бенчмаркинг как методология совершенствования управления российскими вузами / Я. Ш. Евдокимова // Университетское управление, практика и анализ. – 2005. – № 4. – С. 27–38. – URL: https://www.umj.ru/jour/article/view/223/224 (дата обращения: 07.06.2020). – Рез. англ.

13. Mehta, N. Evaluating Comparative Performance of Indian Engineering Educational Institutes Based on TQM Criteria for Internal Benchmarking / N. Mehta, N. Diwakar, R. Arya. – DOI 10.1108/BIJ-09-2017-0250 // Benchmarking: An International Journal. – 2019. – Vol. 26, no. 1. – Pp. 221–245. – URL: https://www.emerald.com/insight/content/doi/10.1108/BIJ-09-2017-0250/full/html (дата обращения: 07.06.2020).

14. Масюк, Н. Н. Бенчмаркинг как инновационный способ повышения конкурентоспособности университета на международном рынке образовательных услуг / Н. Н. Масюк, П. В. Петрищев. – Текст : электронный // Современные проблемы науки и образования. – 2012. – № 6. – URL: https://www.science-education.ru/pdf/2012/6/371.pdf (дата обращения: 12.05.2020). – Рез. англ.

15. Langer, T. Benchmarking und Balanced Scorecard als integrierter Managementansatz zur Verbesserung der Prozessperformance – dargestellt am Beispiel der UHT-Milch-Produktion / T. Langer. – Fakultät Wissenschaftszentrum Weihenstephan für Ernährung, Landnutzung und Umwelt der Technischen Universität München zur Erlangung des akademischen Grades eines Doktors der Wirtschaftswissenschaften (Dr. oec.) genehmigten Dissertation, 2005. – URL: https://studylibde.com/doc/18478017/balanced-scorecard-benchmarking (дата обращения: 17.05.2020).

16. Wende, M. C. van der. Internationalising the Curriculum in Dutch Higher Education: An International Comparative Perspective / M. C. van der Wende. – DOI 10.1177/102831539700100204 // Journal of Studies in International Education. – 1997. – Vol. 1, issue 2. – Pp. 53–72. – URL: https://journals.sagepub.com/doi/10.1177/102831539700100204 (дата обращения: 17.05.2020).

17. Straub, R. Benchmarking – Eine Darstellung des Benchmarking als modernes Instrument zur Leistungsverbesserung / R. Straub. – Universität Zürich, Fakultät für Wirtschaftswissenschaft, Dissertation zur Erlangung der Würde eines Doktors der Wirtschaftswissenschaften, 1997. – URL: https://www.zvab.com/Benchmarking-Darstellung-modernes-Instrument-Leistungsverbesserung-Dissertation/15984060137/bd (дата обращения: 27.05.2020). – Текст : электронный

18. Vančová, A. Applied Behavioral Analysis Therapy in Special Education Practice / A. Vančová, K. Nagyová. – DOI 10.12955/cbup.v7.1438. – Текст : электронный // Current Issue. CBU International Conference Proceedings. – 2019. – Vol. 7. – URL: https://ojs.journals.cz/index.php/CBUIC/article/view/1438 (дата обращения: 27.05.2020).

19. Мерзон, Е. Е. Резонансные механизмы брендинга территорий в системе DUDR: умный университет – умный регион / Е. Е. Мерзон, О. Р. Рябов. – DOI 10.34680/visant-2020-430-438 // Визуальная антропология – 2019. Город-университет: жизненное пространство и визуальная среда: материалы III Международной научной конференции, 28–30 августа 2019 г., Великий Новгород / под редакцией С. С. Аванесова, Е. И. Спешиловой. Великий Новгород: Новгородский государственный университет имени Ярослава Мудрого, 2020. – С. 430–438. – URL: https://www.novsu.ru/file/1609591 (дата обращения: 27.05.2020). – Рез. англ.

20. Михайлова, Е. А. Основы бенчмаркинга: внутренний сопоставительный анализ // Менеджмент в России и за рубежом / Е. А. Михайлова. – Текст : электронный – 2001. – № 4. – URL: https://www.cfin.ru/press/management/2001-4/10.shtml (дата обращения: 12.06.2020).

21. Klug, F. (Hrsg. und author.) Föderalismus: Was kostet uns der Föderalismus? Und was bringt er? Bd. 132 / F. Klug. – Linz, 2018. – 103 p. – URL: http://www.ikw.co.at/PDFs/IKW132.pdf (дата обращения: 27.06.2020).

22. Klug, F. (Hrsg.). Gegenwart und Zukunft der Institutionen der öffentlichen Kontrolle, Bd. 114 / F. Klug. – Linz, 2004. – 198 p. – URL: http://www.ikw.co.at/PDFs/IKW114.pdf (дата обращения: 27.06.2020).

23. Asynchronism of Academic Mobility Processes and the Intellectual Integration Crisis in the Context of the COVID-19 Pandemic Events / I. Sibgatullina-Denis, A. Vančová, L. Komarova, A. Kirsha // Ziganchina E.,

Gibadulin R., ed. Modern Labor Migration. Social Issues and Challenges of New Time: collective monograph. – Moscow : MPSU, 2020. – Pp. 22–27. – URL: https://drive.google.com/file/d/1MVYRWIsiwVhSwXfon6Z0vipt-MY9RRGCV/view (дата обращения: 07.10.2020).

24. Teichler, U. Academic Mobility and Migration: What We Know and What We Do Not Know / U. Teichler. – DOI 10.1017/S1062798714000787 // European Review. – 2015. – Vol. 23, issue S1. – Pp. S6–S37. – URL: https://clck.ru/RnsyS (дата обращения: 07.10.2020).

25. Popa, D. Academic Mobility Policies in Higher Education of Bosnia and Herzegovina / D. Popa, R. Knezevic. – DOI 10.26755/RevPed/2018.1/159 // Revista de Pedagogie – 2018. – No. 1. – Pp. 159–171. – URL: http://revped.ise.ro/wp-content/uploads/2018/07/2018.-1.-159-171.-Popa.-Knezevic.pdf (дата обращения: 07.10.2020).

26. Yemini, M. Research on Internationalisation in Higher Education – Exploratory Analysis / M. Yemini, N. Sagie. – DOI 10.1080/13603108.2015.1062057 // Perspectives: Policy and Practice in Higher Education. – 2016. – Vol. 20, issue 2-3. – Pp. 90–98. – URL: https://www.tandfonline.com/doi/full/10.1080/13603108.2015.1062057 (дата обращения: 07.10.2020).

27. Robson, S. Internationalisation of Higher Education: Impacts, Challenges and Future Possibilities / S. Robson, M. Wihlborg. – DOI 10.1177/1474904119834779 // European Educational Research Journal. – 2019. – Vol. 18, issue 2. – Pp. 127–134. – URL: https://journals.sagepub.com/doi/full/10.1177/1474904119834779 (дата обращения: 07.10.2020).

28. Alemu, S. K. Transnational Mobility of Academics: Some Academic Impacts / S. K. Alemu. – DOI 10.26529/cepsj.464 // Center for Educational Policy Studies Journal. – 2020. – Vol. 10, no. 2. – Pp. 77–100. – URL: https://cepsj.si/index.php/cepsj/article/view/464 (дата обращения: 07.10.2020).

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Об авторах:

Сибгатуллина-Денис Ирене, директор международных программ науки и образования Института интеллектуальных интеграций (1080, Австрия, г. Вена, ул. Шкодагассе д. 7/7), аффилированный профессор кафедры экономики и менеджмента Елабужского института ФГАОУ ВО «Казанский (Приволжский) федеральный университет» (420008, Российская Федерация, г. Казань, ул. Кремлевская, д. 18), грант-исследователь ФГБОУ ВО «Московский педагогический государственный университет» (119991, Российская Федерация, г. Москва, ул. Пироговская, д. 1/1), доктор психологических наук, профессор, **ORCID: https://orcid.org/0000-0001-5149-6139**, **Researcher ID: E-1795-2019**, office@rbs-ifie.at

Рябов Оскар Раифович, генеральный директор, генеральный эксперт Управления урбанистики, экономики и психологии Института интеллектуальных интеграций (1080, Австрия, г. Вена, ул. Шкодагассе, д. 7/7), приглашенный профессор-исследователь ФГАОУ ВО «Казанский (Приволжский) федеральный университет» (420008, Российская Федерация, г. Казань, ул. Кремлевская, д. 18), грант-исследователь ФГБОУ ВО «Московский педагогический государственный университет» (119991, Российская Федерация, г. Москва, ул. Пироговская, д. 1/1), кандидат психологических наук, **ORCID: https://orcid.org/0000-0002-5556-081X**, **Researcher ID: K-9123-2018**, office@rbs-ifie.at

Мерзон Елена Ефимовна, директор Елабужского института ФГАОУ ВО «Казанский (Приволжский) федеральный университет» (420008, Российская Федерация, г. Казань, ул. Кремлевская, д. 18), кандидат педагогических наук, доцент, **ORCID: https://orcid.org/0000-0001-7708-2946**, **Scopus ID: 55931033300**, **Researcher ID: Y-3541-2018**, elena.merzon@kpfu.ru

Ванчова Алица, директор института специальных педагогических исследований факультета образования Университета Коменского (814 99, Словакия, г. Братислава, ул. Сафарикова, д. 6), доктор педагогических наук, профессор, **ORCID: https://orcid.org/0000-0001-6885-4166**, vancova@fedu.uniba.sk

Заявленный вклад авторов:

Сибгатуллина-Денис Ирене – руководство и разработка проекта исследования; формулирование концепции исследования и обзор зарубежной литературы; описание методов; сбор информации; научное редактирование текста.

Рябов Оскар Раифович – структурирование разделов и текста статьи; идентификация интернет-ресурсов; описание дескриптивной модели; анализ результатов; концептуальная разработка графических иллюстраций статьи; проверка результатов исследования; подготовка текста заключения.

Мерзон Елена Ефимовна – структурирование обзора литературы; анализ полученных данных; оформление таблиц; написание рабочего варианта статьи; идентификация терминологии и используемых понятий.

Ванчова Алица – обзор диссертационных исследований бенчмаркинга по Восточной Европе; проверка аббревиатур; аналитика графиков; руководство экспрес-исследованием в период COVID-19.

Все авторы прочитали и одобрили окончательный вариант рукописи.