



University ranking as a tool for the formation of educational space

Ranking universitario como herramienta para la formación de espacios educativos

Ekaterina V. BEBENINA ¹; Irina M. ELKINA ²

Received: 12/07/2017 • Approved: 30/07/2017

Content

1. Introduction
 2. The role of ratings in the formation of the educational space
 3. The relevance of the ratings and the growing number of universities included in it
 4. The role of ratings in improving the quality of education in the university
 5. Conclusion
- Acknowledgments
- References

ABSTRACT:

Making efforts to improve the quality of education, the university needs to use not only internal information to make the necessary managerial decisions, but also rely on objective statistics and the results of interviews of stakeholders and experts in the field of education. Thus, one of the tools for improving the quality of education is the rankings. However, this does not exhaust the role of rankings in education. Provided that they include not only statistical data, but also more complex criteria, for example, the opinion of leading scientists, or take into account the ideas about the outcomes of their training of graduates, the rankings allow formulating strategic goals for the further development of the university, and in a broader sense – to set the vector of the development of the educational space as a whole. In this paper the authors consider this aspect of the application of rankings in the development of universities.

Keywords: ranking, education system, quality of education, university-level education, educational space, postindustrial society

RESUMEN:

Haciendo esfuerzos para mejorar la calidad de la educación, la Universidad necesita utilizar no sólo información interna para tomar las decisiones gerenciales necesarias, sino también basarse en estadísticas objetivas y los resultados de entrevistas de los interesados y expertos en el campo de la educación. Así, una de las herramientas para mejorar la calidad de la educación es el ranking. Sin embargo, esto no agota el papel de los rankings en la educación. A condición de que incluyan no sólo datos estadísticos, sino también criterios más complejos, por ejemplo, la opinión de los principales científicos, o tener en cuenta las ideas sobre los resultados de su formación de egresados, los rankings permiten formular metas estratégicas para el ulterior desarrollo de la Universidad, y en un sentido más amplio – establecer el vector del desarrollo del espacio educativo en su conjunto. En este trabajo los autores consideran este aspecto de la aplicación de rankings en el desarrollo de las universidades.

Palabras clave: ranking, sistema educativo, calidad de la educación, educación universitaria, espacio educativo, sociedad postindustrial

1. Introduction

The ranking of educational organizations (universities) affects both the stakeholders and the development of the organizations themselves. Stakeholders can choose an educational organization basing on their needs for education in accordance with the criteria necessary for them. Organizations receive one of the public recognition marks, as well as the target for the further development (*EUMIDA, Feasibility study for*

creating a European university data collection. Final study report, 2012). In our paper, we consider the university rankings as the most well-developed and known in the world.

The ranking can be created according to different methodologies and include different criteria. Once the identification of a university ranking by one or a few criteria gave statistics and allowed to distinguish "the best among ...". This interpretation of the university rating position could satisfy rather unpretentious requests. However, with the increasing demands on the conditions and quality of education, statistical reports could not predict what would happen to the university in the near future. They could show the past merits of the team of managers and faculty. Statistical rating, i.e. the position of the university in the world ranking according to one separate parameter refers to the past; these figures indicate the achievements that have already been accomplished (OECD, n. d.).

Modern rankings, more complex, taking into account several dozens of criteria, allow to include various criteria, regarding university reputation. Not all criteria are easily recognized as objective, reputational ones are disputed because of their selection and the weights attributed to them (*Materials of rating agency "Expert RA"*, n. d.; *Materials of the portal GARANT*, n. d.; *Materials of the portal STRF*, n. d.; *Materials of the web-site Shanghairanking*, n. d.; *Materials of the web-site Topuniversitites.com*, n. d.; Rauhvargers 2013). "Floating" criteria reflect the constantly changing situation in society, economy, educational policy, and help determine the immediate and medium-term goals for the development of an educational organization in the desired way. More sophisticated modern ratings allow, "playing" with parameters, to determine the nearest tactical tasks of the development of the educational organization, taking into account the best practice of more advanced colleagues or solving their own economic problems to the ranking compilers.

2. The role of ratings in the formation of the educational space

The question that is relevant to the ratings is the quality of education in a particular educational institution. Statistical reports and modern rankings allow evaluating it using numbers and rating positions. The postindustrial society complicates the idea of the quality of education, at the same time seeking to its personalization, including more complex ideas of people about their education as a contribution to the future (Ivanova and Elkina 2016a; Ivanova and Ivanov 2016b). Remote in time education quality evaluation will have little to do with today's university, it can describe the university and the situation with its learning process state of many years ago, when the evaluator studied at this university. However, the results of this study will determine the future of the person. The usage of more complex, "derivative", non-linearly measured parameters that take into account personal priorities of actors (taking into account the opinion of university graduates after a number of years on their education) allows implementing strategies for the formation of educational space in the near and distant future.

In our opinion, the existing ratings should describe and format the educational space of the future remote for decades. Consequently, they should include complex, indirectly measured human perceptions of education, remove barriers between educational institutions and determine the confidence to the organization providing the education, and the staff of this organization.

Barrier-free education and confidence in the educational organization are only a part of the factors that contribute to the organization of the educational space of the post-industrial society. The ratings, which include as many universities as possible, contribute to the expansion of geography, as it happens today, help to level the requirements for the educational process, improve its overall quality, as they set criteria and determine the competitiveness of universities (Ivanova and Ivanov 2016b). From the viewpoint of globalization, it is a positive change, however (on the example of the Russian Federation and the countries of the post-Soviet space), critics fairly argue that the automatic transfer of alien experience into the existing education system with its own long-standing and established traditions may play negative role for the development of the university.

Nevertheless, the expansion of international communication and cooperation makes it possible to compare the educational process carried out in the educational organization, and by ranking criteria to modernize it in order to develop and achieve a new higher position in the ranking, which now automatically means improving the quality of education from "external" point of view. The ranking can act as a tool for improving the quality of education. To use this instrument effectively at this stage, it is necessary to take into account not only international processes, but also the specifics of national traditions of the education system, as, for example, in Russia (Bebenina 2011). Only several Russian educational organizations - universities managed to achieve certain positions in international rankings. We can assume that the reason is not only in the real quality of education, but also the social and economic conditions that exist in the country at the present time (Bebenina 2011).

At the moment, there are three most authoritative world rankings of universities. Without being tied to the indicators and methodology of the ratings, we will make a comparative analysis of the representation of the universities included in these 3 ratings by country and region.

3. The relevance of the ratings and the growing number of universities included in it.

Thus, the number of universities included in the Times Higher Education (THE) Ranking from 2011 to 2017 increased from 200 to almost 1,000, the number of universities entering the Quacquarelli Symonds (QS) from 727 in 2011 to 914 in 2016, only the number of universities, Shanghai Ranking (ARWU) remained unchanged - 500, although within the Ranking the changes undoubtedly occurred (*Materials of the web-site ShanghaiRanking*, n. d.; *Materials of the web-site Topuniversities.com*, n. d.; *Materials of the web-site Timeshighereducation.com*, n. d.; Thomson Reuters, *Global Institutional Profiles Project*, n. d.).

How did the number of universities increase? It was due both to the increase in the number of participating countries, and due to the growing number of universities in the countries previously ranked in the rankings.

Let us consider separately how the list of countries varies by year.

ARWU

Of the total list of 47 countries completely disappeared:

- Hungary
- Japan

12 decreased their presence in the ratings:

- India by 67%
- Japan - 54%
- Turkey - 50%
- Poland - 33%
- Canada - 24%
- Denmark - 17%
- Israel - 17%
- USA - 14%
- UK - 14%
- Germany - 10%
- Italy - 10%
- Spain - 8%

15 countries have not changed their presence:

- Argentina
- Belgium
- Chile
- Czech
- Finland
- France
- Greece
- Ireland
- Mexico

- Netherlands
- Norway
- Singapore
- Slovenia
- South Africa
- Switzerland

11 countries increased their presence:

- Sweden - 10%
- Hong Kong - 20%
- Austria - 25%
- New Zealand - 33%
- South Korea - 38%
- Taiwan - 40%
- Brazil - 50%
- Russia - 50%
- Australia - 77%
- China - 356%
- Portugal - 400%

And 7 new countries appeared in the ranking:

- Croatia
- Egypt
- Estonia
- Iran
- Malaysia
- Saudi Arabia
- Serbia.

The QS and THE rankings do not remove countries from their lists; however, they can lower down their status. Therefore, we present a list of growth for these two rankings only.

Fifty-five out of eighty-one countries that are now included in THE ranking, appeared after 2011. In Figure 1 these countries are marked in colour in chronological order from the white colour in 2011 to the dark green colour in 2016.

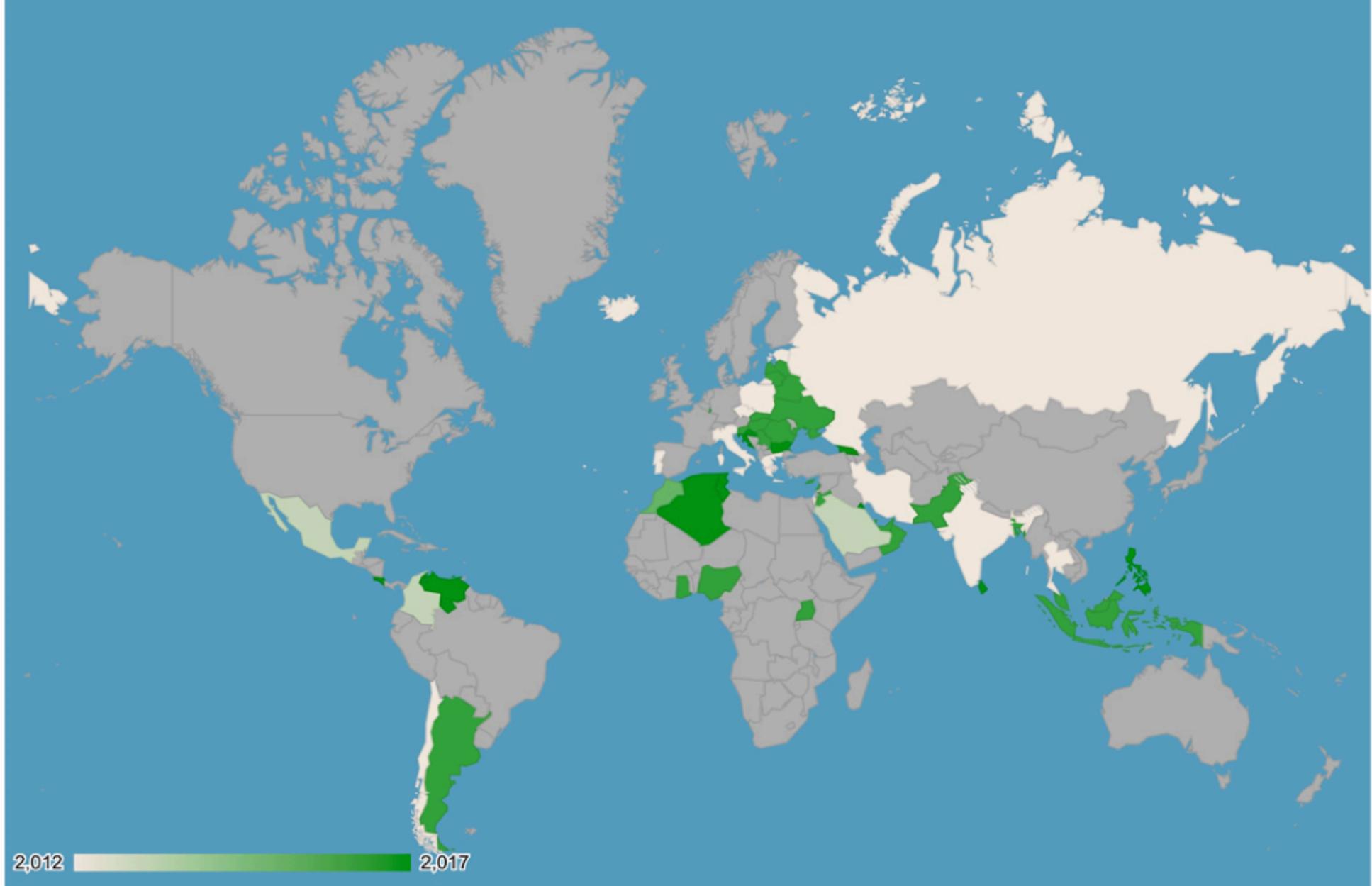


Figure 1. Dynamics of the including of the new countries into THE.

On the contrary, QS practically did not increase the number of new countries. Of the 83 countries with universities in the list, only 11 of them appeared after 2012. Of these in 2013:

- Bulgaria
- Costa Rica
- Cuba
- Ecuador
- Latvia

In 2014:

- Ghana
- Kenia
- Macau
- Tanzania
- Uganda

In 2015, only Slovakia.

Let us see if the list of countries is the same. The consolidated return is given in Table 1.

Table 1. Summary table of the countries participating in the ratings of THE, QS, ARWU.

ARWU	QS	THE
		Algeria

		Argentina
		Bangladesh
		Belarus
		Brazil
	Bulgaria	Bulgaria
		Chile
		Colombia
	Costa Rica	Costa Rica
Croatia		Croatia
		Cyprus
		Czech Republic
Estonia		Estonia
		Georgia
	Ghana	Ghana
		Greece
		Hungary
		Iceland
		India
		Indonesia
Iran		Iran
		Israel
		Italy
		Jordan
	Kenia	Kenia
		Kuwait
		Latvia
		Lebanon

		Lithuania
		Luxembourg
	Macau	Macau
Malaysia		Malaysia
		Mexico
		Morocco
		Nigeria
		Northern Cyprus
		Oman
		Pakistan
		Philippines
		Poland
		Portugal
		Qatar
		Romania
		Russia
Saudi Arabia		Saudi Arabia
		Serbia
	Slovakia	Slovakia
		Slovenia
		Sri Lanka
		Thailand
		Tunisia
	Uganda	Uganda
		Ukraine
		United Arab Emirates
		Venezuela

Egypt		
	Cuba	
	Ecuador	
	Latvia	
	Tanzania	

All three rankings show certain similar trends with absolutely divergent strategies for adding new countries. Let us see if there are general trends in the regions of the world. Considering the increase in the number of universities by regions, let us look at the growth in the number of universities, without emphasis on whether representatives of these countries were in the ratings before or not.

General trends by region for ARWU are shown in Figure 2.

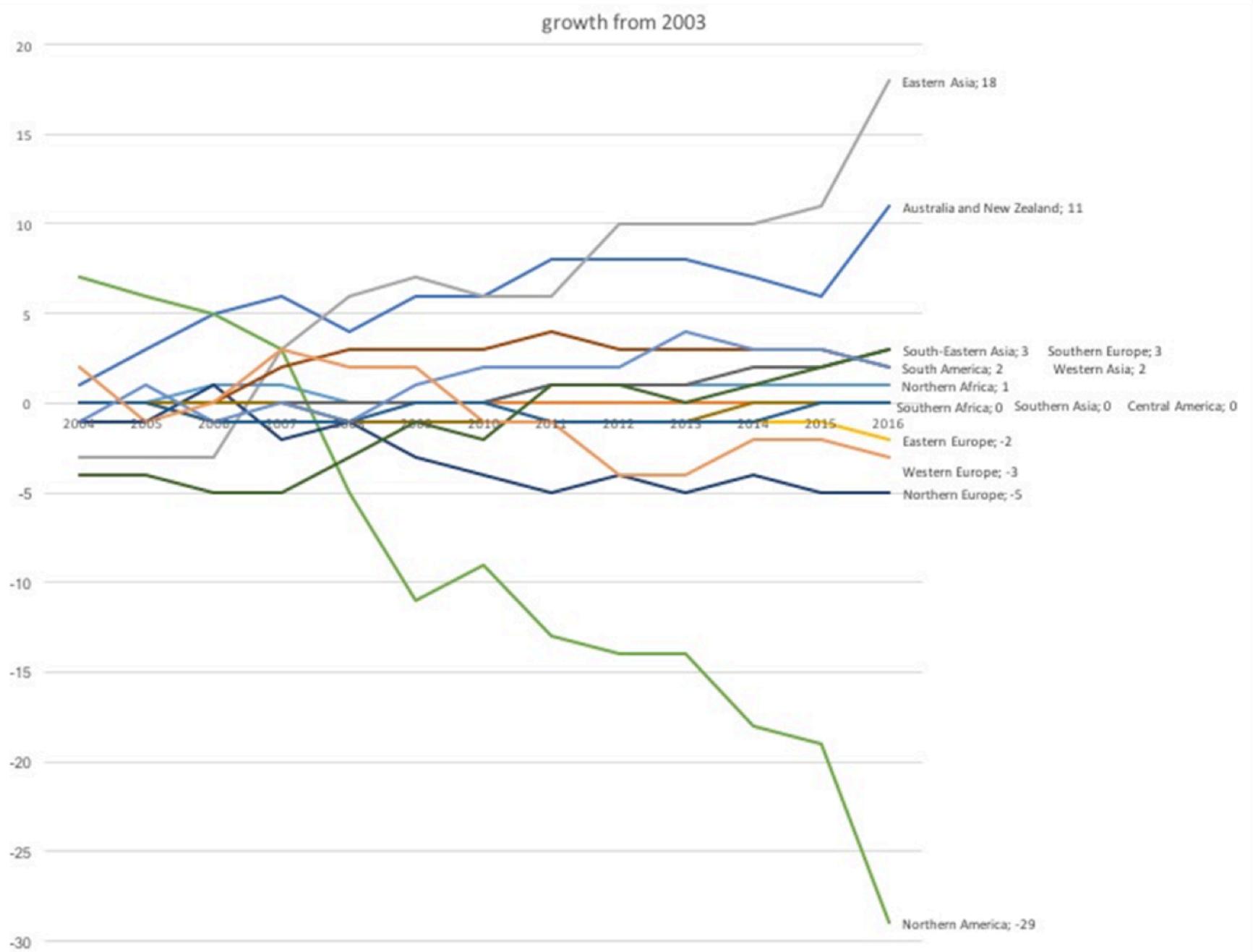


Figure 2. General trends in the representation of countries in the ARWU ranking.

General trends by region for THE ranking are shown in Figure 3.

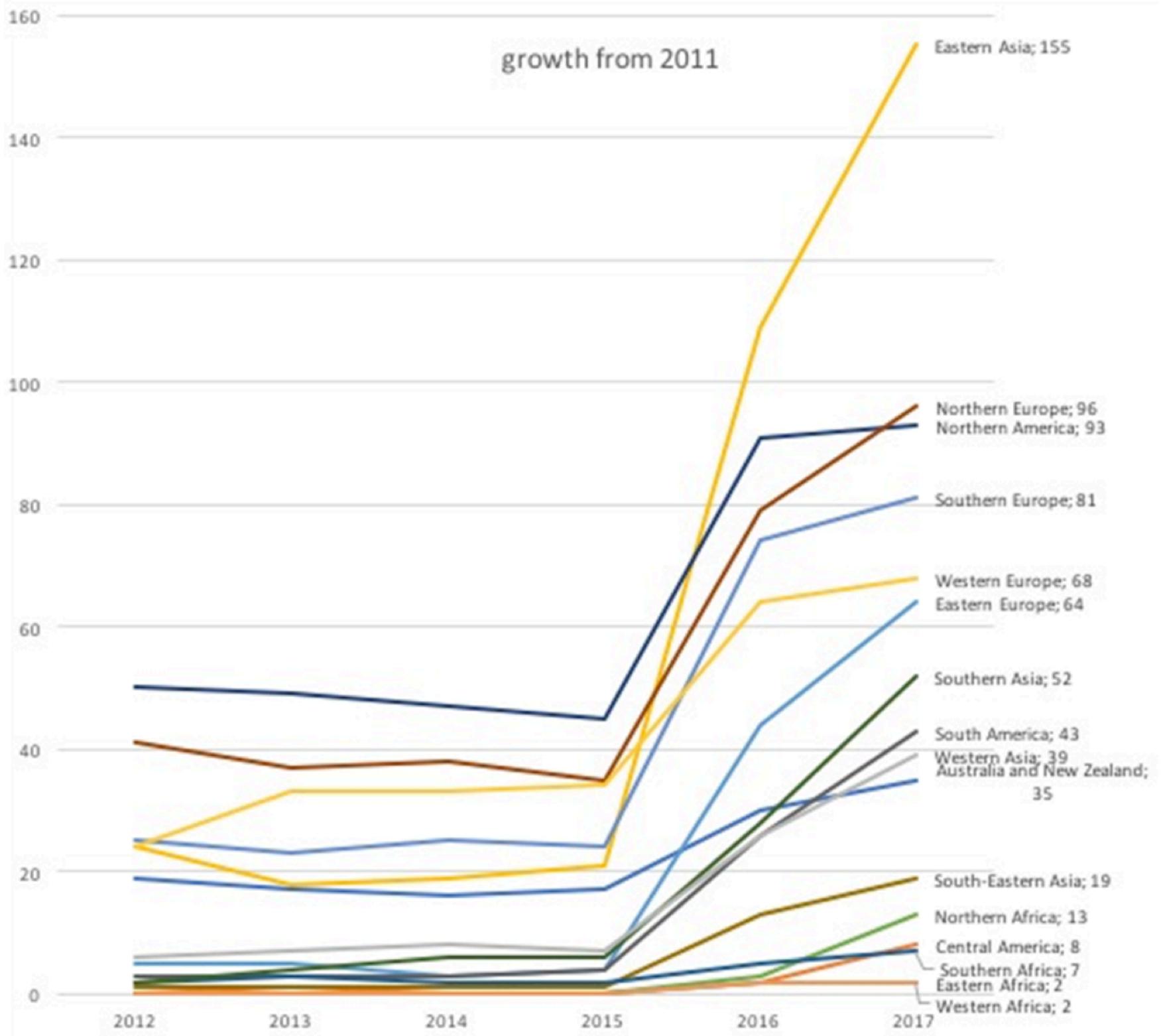


Figure 3. General trends in the representation of countries in THE ranking.

General trends by region for QS ranking are shown in Figure 4.

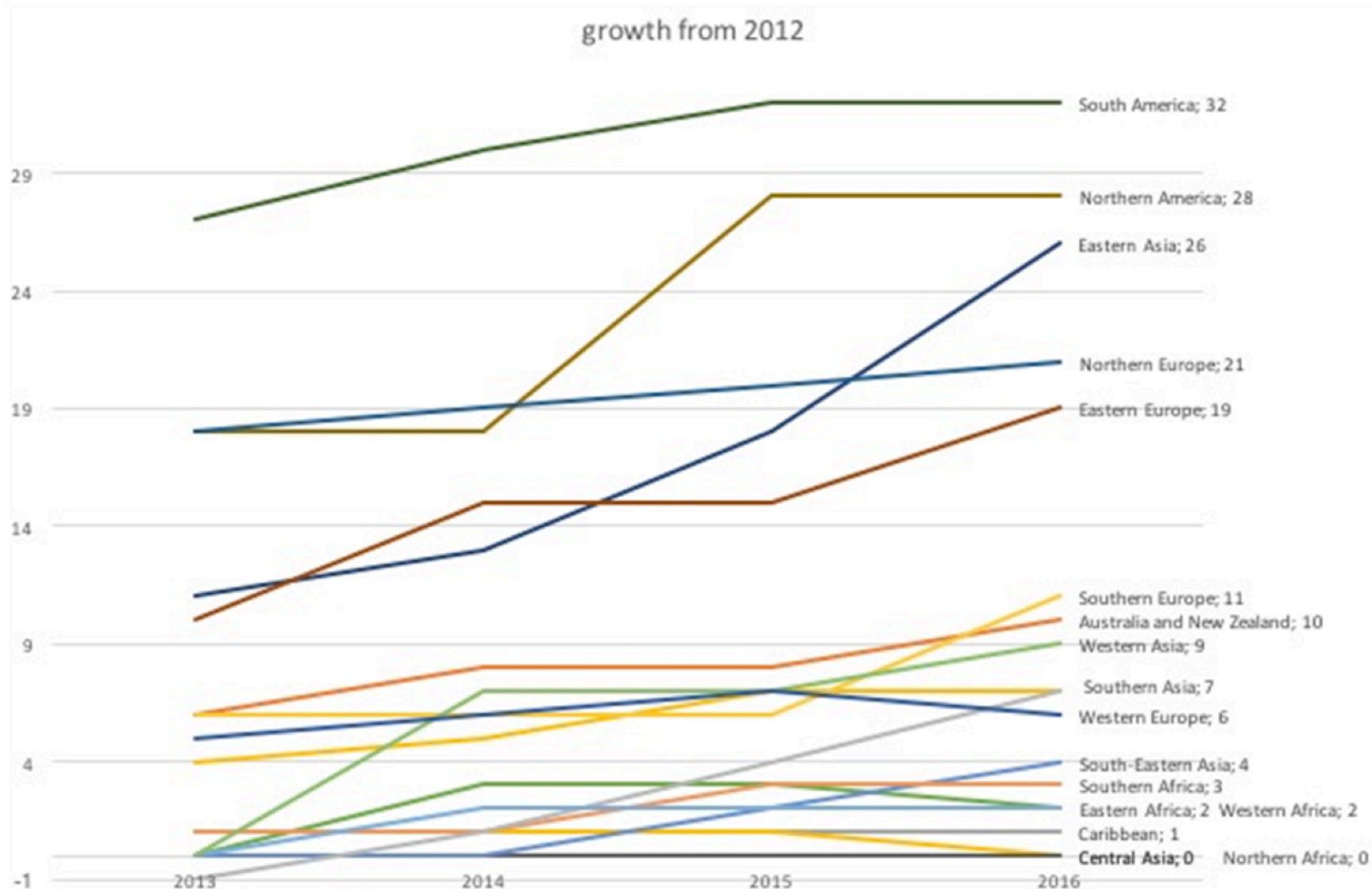


Figure 4. General trends in the representation of countries in the QS ranking.

The most dramatic changes in ARWU ranking are demonstrated by 4 regions:

- Australia and New Zealand;
- Eastern Asia;
- Northern America;
- Northern Europe/

Data on the number of universities in these regions are given in Table 2.

Table 2. Dynamics of the number of universities in the rankings of THE, ARWU, QS by regions.

		2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Australia and New Zealand	the	43	38	25	24	25	27	8								
Australia and New Zealand	arwu		27	22	23	24	24	24	22	22	20	22	21	19	17	16
Australia and New Zealand	qs		43	41	41	39	33									
Eastern Asia	the	178	132	44	42	41	47	23								
Eastern Asia	arwu		81	74	73	73	73	69	69	70	69	66	60	60	60	63

Eastern Asia	qs		124	116	111	109	98									
Northern America	the	174	172	126	128	130	131	81								
Northern America	arwu		156	166	167	171	171	172	176	174	180	188	190	191	192	185
Northern America	qs		180	180	170	170	152									
Northern Europe	the	138	121	77	80	79	83	42								
Northern Europe	arwu		65	65	66	65	66	65	66	67	69	68	71	69	69	70
Northern Europe	qs		113	112	111	110	92									

Here we see that the number of the universities of Northern America and Northern has decreased. Let us consider in more detail the countries which represent these regions and set negative dynamics (Figure 5).

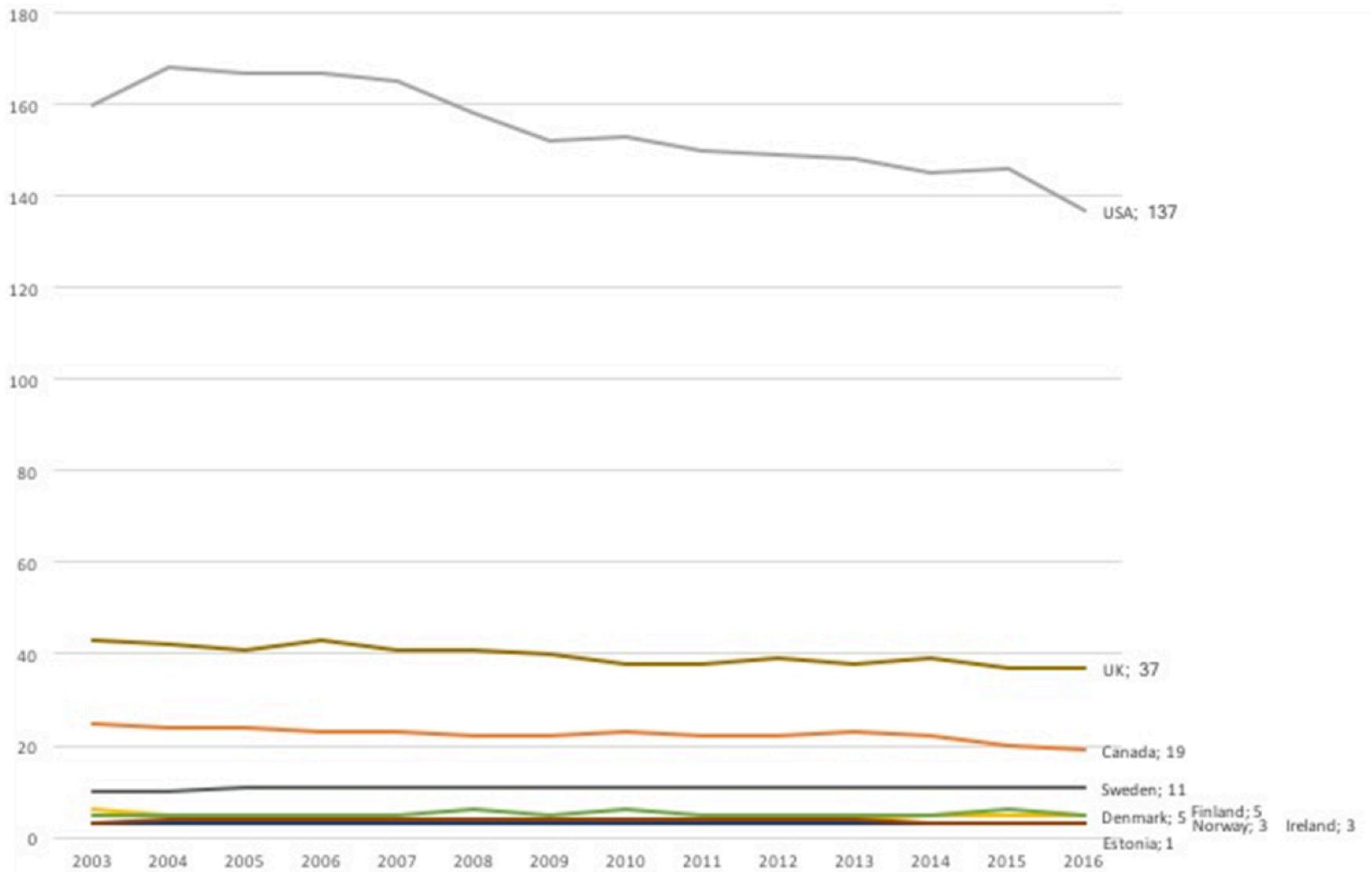


Figure 5. The dynamics of the number of universities in the ARWU ranking in the regions of Northern America and Northern Europe.

Dynamics is set by universities in three countries: USA, UK and Canada.

In 2003 the USA represented 160 universities; by 2016 23 universities have left the ranking. The number of Canadian universities changed from 25 in 2003 to 19 in 2016. The UK showed the same number of universities that left the ranking with the general number of 43 having decreased to 37.

All three countries are English-speaking (Canada bilingual). However, the two English-speaking countries

such as Australia and New Zealand demonstrate positive dynamics.

Let us consider the rating positions of those universities in 2003, which later left the ranking.

10 had the rating position between 451-500;

9 had the rating position between 401-450;

10 had the rating position between 351-400;

6 had the rating position between 301-350;

5 had the rating position between 251-300;

5 had the rating position between 201-250.

It is necessary to mention that 14 out of the 45 universities in the list have never been included into QS and THE rankings.

Of the remaining 31 universities, one was and is included into the second hundred of THE and QS rankings.

One of the universities had rating position from 75 to 300 in different years in THE and was a member of the sixth hundreds of QS.

The remaining 29 universities were not included in THE in 2011; neither most of them were in QS. These are some general trends for universities observed in all three rankings mentioned above.

4. The role of ratings in improving the quality of education in the university

Taking into account previous data, with the help of ranking, it is possible to carry out an expert analysis of the university and consider the parameters of the backlog (or it is necessary to maintain its sustainable competitiveness), what managerial decisions are necessary to improve the quality of education and, accordingly, the position in the ranking (Bebenina 2016).

The quality of education is based on the analysis of the trends in the development of the educational system, the identification of the main trends of the demands of the personnel and stakeholders, the study and improvement of the existing forms and methods of training at the university.

Education quality criteria

At the state level, the quality of education is determined by:

- Financial, scientific, methodological, information, logistics of educational institutions;
- Definition of the content norms necessary to achieve the required quality of education, stated in the Federal Standards for Education;
- Correspondence of social and state needs in specialists;
- The organization of the educational process;
- Training of teaching staff.

At the level of a specific educational institution, the quality of education is determined by:

- Quality of educational and methodological documentation, textbooks and manuals, instructional and methodical materials;
- Compliance with the qualifications of management and teaching staff;
- Effective management system of an educational institution with the participation of social partners;
- Methods of stimulating the development of professional skills of teachers;
- Indicators of the conditions in which the learning process takes place.

At the student level, the quality of education is determined by:

- Level of general education, degree of preparedness;
- System of graduates' preparation for professional work;

- Information on the professional success of graduates in the labor market after the graduation from the educational institution;
- Participation of employers in the professional training of students in the process of education.

Thus, the definition of the quality of education can be presented in the following form:

Quality of education = quality of conditions + quality of the process + quality of the result

The presence in the ranking of the criterial indicators associated with the levels of the education quality, would contribute to improving competitiveness and quality of education at the university.

These criteria indicators in one way or another are represented in the world rankings of universities; here we will generalize the aspects of their application:

- requirements for the formulation of the objectives of the educational program, its relationship with the mission of the university and compliance with the program's consumers (students and stakeholders), including the availability of a system for continuous determination and periodic reassessment of program objectives, based on the interests of the program's customers;
- requirements for the content of the educational program, which should have explicitly and clearly stated expected learning outcomes, the ratio between the natural sciences, Social and Liberal Arts and socioeconomic sciences, the cluster of general professional and special disciplines in the structure of the curriculum, and also have the necessary means to assess the achievement of the planned learning outcomes;
- requirements for the educational process and the student contingent, which should provide the opportunity to achieve the learning outcomes by all graduates of the program, have a mechanism that ensures continuous monitoring of the implementation of the curriculum and feedback for its improvement;
- requirements for the teaching staff, which ensures the implementation of the educational program, the level of its qualification, the participation of teachers in the scientific-methodical and research work of the university;
- requirements for knowledge, skills, practical skills and competences that the student should acquire by the time of completion of the training by this program, the learning outcomes being specific and measurable;
- requirements for resource support (material and technical base, information support, finance and management): available resources should be consistent with the objectives of the program and ensure achievement of learning outcomes by all graduates in this educational program.
- requirements for the work of the university with graduates. In the university there should be a system for studying employment, demand, career support and continuous professional development of graduates of the university.
- requirements for the scientific and innovative activities of the university, the availability of a student scientific-research center, technological equipment, the availability in the university of centers for collective use of unique expensive equipment, the formation of scientific and scientific-pedagogical schools (Bebenina 2011).

In the process of analyzing managerial decisions taken by universities, a type of solutions was identified that did not relate to improving any criterial indicators but affecting the quality indicators of the educational process to such an extent that one might assume the need to introduce this criterion measure, which, in turn, can serve as an incentive for the change of educational institutions according to the trend.

This specific criterion indicator defines the requirements for the awareness of potential consumers of the educational program about its existence, goals, objectives and benefits. Influx of applicants entering the university may lead to overall increase of supply of the university; high competition may attract more excellent students; as a result the use of extended educational programmes and better financing will lead to the complex and interrelated improvement of all indicators of the quality of the educational process.

5. Conclusion

The use of rankings to improve the quality of the educational process provides an opportunity for the university to be objectively assessed by third-party qualified experts, who can appraise its strengths and weaknesses and identify areas for its future development. Activity to improve the quality of the

educational process in all aspects is the most important source for creating sustainable competitive advantages for the university. And, on the contrary, the absence of this activity almost inevitably leads to a relative deterioration in the performance of the university indicators. Moreover, in our opinion, the improvement of quality indicators even for one of the criteria quality indicators entails the improvement of the other indicators.

Expert analysis of the quality of university education should be carried out according to general criteria, however, it should take into account the specifics of each field of training, focus on the labor market and employment of graduates of universities, but at the same time should be based on the fundamental and universal nature of education, personal development and the formation of public responsibility. Higher education in principle should be development-oriented and therefore should overtake the labor market system requirements and be at the high level of science development. Thus, the vector of development and further formation of the educational space is set, which ensures the possibility of obtaining a quality education for all, regardless of the geographic location of the student.

The success of educational activity directly depends on the right marketing decisions. Advertising activities for universities become an equally necessary source of expansion of their activities, naturally, having acquired their own specific features in the field of education.

In general, in the adoption and implementation of innovative management decisions, organizations that have chosen a strategy for a constant rapid and multidimensional development are more successful.

Acknowledgments

This paper was prepared within the framework of RFBR grant 2017-2019 #17-06 - 00122 a "Modern pedagogical comparativistics: role, functions and development factors".

References

- Bebenina E.V. (2011). Obshchestvenno-professional'naya ekspertiza kachestva obrazovatel'nogo protsessa kak osnova dlya prinyatiya upravlencheskikh reshenii. [Socio-professional examination of the quality of the educational process as a basis for making managerial decisions]. *Tsennosti i smysly*, 6, 85-107
- Bebenina E.V. (2016). Rankings in education: history and critical analysis of rates. *SHS Web of Conferences*, 29. 01006. DOI: 10.1051/shsconf/20162901006
- EUMIDA, Feasibility study for creating a European university data collection. Final study report, (2012).* Date View May 3, 2017 <http://ec.europa.eu/research/era/docs/en/eumida-final-report.pdf>
- Ivanova S.V. and Elkina I.M. (2016a). Postmodernizm i kachestvo obrazovaniya (postanovka problemy). [Postmodernism and the quality of education (posing the problem)]. *Tsennosti i smysly*, 6 (46), 115-124.
- Ivanova S.V. and Ivanov O.B. (2016b). Society demands for the quality of education as a factor of modern education space forming. *SHS Web of Conferences*, 29. 01028. DOI: 10.1051/shsconf/20162901028
- Materials of rating agency "Expert RA".* (n. d.) Date View May 3, 2017 <http://raexpert.ru/ratings/history>
- Materials of the portal GARANT.* (n. d.) Date View May 3, 2017 http://base.garant.ru/70291362/1/#block_1000#ixzz3fdXTQWte
- Materials of the portal STRF.* (n. d.) Date View May 3, 2017 http://www.strf.ru/material.aspx?CatalogId=221&d_no=38618#.U28aTvl_tFs
- Materials of the web-site Shanghairanking.* (n. d.) Date View May 3, 2017 <http://www.shanghairanking.com/ARWUMethodology-2015.html>
- Materials of the web-site Timeshighereducation.com.* (n. d.) Date View May 3, 2017 <https://www.timeshighereducation.com/world-university-rankings>
- Materials of the web-site Topuniversitites.com.* (n. d.) Date View May 3, 2017 <https://www.topuniversities.com/university-rankings>
- OECD (n. d.). *Assessment of Higher Education Learning Outcomes. Feasibility Study Report. Volume 2 – Data Analysis and National Experiences.* Date View May 3, 2017 <http://www.oecd.org/edu/skills-beyond-school/AHELOFSReportVolume2.pdf>
- Rauhvargers A. (2013). *Global university rankings and their impact. Report II. EUA report on rankings 2013.* Date View May 3, 2017 http://www.eua.be/Libraries/publications-homepage-list/EUA_Global_University_Rankings_and_Their_Impact_-_Report_II

1. Institute for Strategy of Education Development of the Russian Academy of Education, Russia, Moscow, 105062, ul. Makarenko, 5/16. E-mail: bebenina@instrao.ru

2. Institute for Strategy of Education Development of the Russian Academy of Education, Russia, Moscow, 105062, ul. Makarenko, 5/16. E-mail: inter@instrao.ru

Revista ESPACIOS. ISSN 0798 1015
Vol. 38 (Nº 40) Año 2017

[Índice]

[En caso de encontrar algún error en este website favor enviar email a webmaster]

©2017. revistaESPACIOS.com • Derechos Reservados