

The importance of the university world rankings in the context of globalization

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Abstract. In the context of rapidly growing demand for higher education, the relevance of the global rankings of the universities increases all over the world. Results of these rankings not only allow evaluation of the higher education quality, but also affect its competitiveness in the educational market. Recognition of the educational institution at the international level is becoming increasingly important for universities around the world. Due to the relevance of the issue, the paper explores the methodology of compiling international ranking, namely “QS World University Ranking”. The authors conducted a quantitative analysis of the distribution of universities, represented in QS ranking, across the various countries. Application of ABC-analysis made it possible to demonstrate that the QS ranking, which originally was created as an instrument of competition of leading universities in the most developed countries in educational space, due to its broad advertising opportunities became attractive for universities of different countries in their efforts toward attracting the students. The priority areas for the university development are identified to raise the international credibility and competitiveness of the Russian higher education. To reach a new level, Russian universities need a breakthrough in every field. Three main vectors are highlighted as priority ones; these are scientific, innovative and international activities of universities. In the next 5-7 years every Russian university will face the challenge to create a new dynamic, globally competitive environment, which will attract both world-renowned scientists and talented students from all over the world. This environment will provide the opportunity to take part in the prestigious educational curriculums, research activities, and custom project developments for the global industry leaders, as well as communication in the international scientific and educational environment.

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Introduction

A distinctive feature of the early XXI century is the growing pace of world economy globalization that is a qualitatively new stage of internationalization of the world community. This process leads eventually to the formation of a single global market of individual national economies. Globalization process, which initially emerged and developed spontaneously, now is becoming more organized and directed not only to the capital, technology, and commodity markets, but focused on services market as well. To a large extent this also applies to the educational market. Current problem is in sight of foreign and Russian scientists, who emphasize that the educational market, as any other market, is fully subjected to the laws of competition [1; 5-11]. At that, two main functions are accomplished: on the one hand, sale of services at the most favorable conditions, on the other hand, the accumulation of intellectual potential of the state by attracting the most talented graduates to work in the country. "Talent migration" has become one of the hallmarks of our time; it is realized primarily through training of students abroad. To date, there are more than 9,000 universities in 204 countries around the world [2].

University attractiveness to students and credibility of university diploma for employers are largely dependent on ranking of a particular education institution. On the one hand, ranking helps talented young people in their search for high-quality education enabling them to fully unlock their potential. On the other hand, the higher the ranking status of the university, the more students are willing to study there. In addition, in many countries, particularly in England, the tuition fee is very dependent on the ranking status of a university. It should be noted that just a small fraction (from 0.4% to 8%) out of a large number of universities are selected by most respected rankings.

Rankings of the best world universities are regularly compiled by various agencies. Today, QS World University Ranking, compiled by Quacquarelli Symonds (QS) consultancy, is one of the most popular and most respected in the educational market.

This company was founded in 1990 for the purpose to provide intermediary service in the education market, helping a young person to find the most attractive curriculum, university and country to study. The QS World University Ranking was first published in 2004, and soon became one of the leading rankings, and thus the universities around the

world tend to be in within eyeshot of the QS company. This trend can be clearly traced over time: in 2007, 619 universities were represented in the ranking, while in 2011 this number increased up to 724; in 2013, 834 high schools from 76 countries were included into the ranking. In order to select these universities out of almost 3,000 educational institutions, submitted their applications, 62,094 responses from the academic community and 27,957 reviews from employers were taken into consideration [3].

According to the President Decree dated March 2013, the Government of the Russian Federation initiated a project with the working title "5-100-2020". The purpose of the project was to ensure by 2020 the involvement of at least five Russian universities into top one hundred leading universities according to QS World University Rankings. In May 2013, the Ministry of Education and Science of the Russian Federation has announced a contest among the universities for receiving a subsidy to enhance their global competitiveness and advancement in international rankings. In July, the International council for enhancing the competitiveness of the leading Russian universities, established by the Government, debriefed personal reports of chancellors of 36 universities and identified 15 winners, namely St. Petersburg State Polytechnic University, Moscow Engineering and Physics Institute, Tomsk State University, Far Eastern Federal University, and other federal universities in Russia.

Data and methodology

When using any ranking data, it is important to comprehend the methodological basis that underlies the ranking basis. Table 1 shows the performance indicators, which were developed by QS company for compiling QS World University Ranking [3].

Table 1. Performance indicators for compiling QS World University Ranking

No	Indicator	Weight
1.	Academic outlook	40%
2.	Outlook of employers	10%
3.	Ratio of faculty members to the number of students	20%
4.	Citation index	20%
5.	Proportion of foreign students	5%
6.	Proportion of foreign teachers	5%

Academic outlook is determined based on global research. In the course of survey, scientists provide feedback, expressing their opinion about educational institutions that are at the highest level in terms of research in their areas of expertise. Information is taken within the last three year timeframe. In 2013, a survey study included more than 62,000 scientists from around the world.

Outlook of employers is another important performance indicator based on global surveys. During the survey, respondents were asked to name

the universities that produce the best trained professionals of one or another profile. When compiling the ranking of 2013-2014, the survey involved 27,900 respondents.

The ratio of faculty members to the number of students is calculated based on the data not only provided by the university, but also the information received from state organizations. In the lack of an international standard that allows to evaluate the quality of teaching, this indicator gives an idea of how well universities are staffed with teachers to ensure the work with small groups of students, and hence, to devote maximum attention to each student.

Citation index is the performance indicator designed to assess the quality of university research. As a rule, the more citations of other scientists on published results of a certain research, the more significant is the research itself. Therefore, the higher is a number of cited university research works, the higher is its scientific outlook. The information, collected by the QS company during the time from 2004 to 2007, was taken using Thompson base, whereas since 2007 the information was collected from Scopus. Scopus indexes 18,000 scientific publications in technical, medical and humanities, which are published by 5,000 publishers.

The proportion of foreign students reflects the degree of attractiveness of the educational institution in the international arena. Non-exchange foreign students, who are citizens of other countries and are enrolled in high school for at least a semester, are taken into account.

The proportion of foreign teachers is a very important performance indicator, as participation in the teaching process of foreign teachers not only bespeaks for the high international status of the university, but also gives students the opportunity to acquire the knowledge from different scientific schools.

Analysis and results

Analyzing the QS World University Ranking methodology we can note that the scientific outlook of the university is the most significant ranking indicator in the world academic community. This outlook is created by publication of research findings in the most representative journals, reports, and conference presentations.

Citation index is directly associated with both the possibility of the presentation of scientific articles in the international press, and the quality of research described, drawing interest of colleagues. Thus, 60% of ranking score depends on the depth and innovation nature of the research pursued by the universities, as well as by the rapid publication of their results in journals with a broad readership. To date, Scopus indexes just over 300 Russian journals, translated or

published in English, which is only 1.67% of the total Scopus database. It is small wonder that the information about the achievements of Russian science, presented at the international level, is inadequate to its actual significance.

Another significant indicator is the ratio of faculty members to the number of students. It reflects the opportunity of a student to work more closely with the teacher that indirectly characterizes the quality of education. In most of the European countries, the average ratio of student/teacher at the educational institution is 1:14. In North America this ratio is higher (1:17). Even in the BRIC countries (Brazil, Russia, India, China), the ratio is 1:12. As for Russia, since 2001 the reference value of this ratio is 1:10 [4].

If we apply the ABC-analysis technique to explore the ranking, than a list of countries, whose universities are involved in the international ranking, can be divided into 3 groups: group A includes the countries, where more than 10 universities are involved in the ranking; group B includes the countries with the number of involved universities from 4 to 10; and group C includes the countries with a number of involved universities from 1 to 3.

The results of this analysis are presented in Table 3.

Table 2. The analysis of the QS World University Ranking structure

	2009		2011		2013	
	Number	%	Number	%	Number	%
Country group A	464	73%	473	68%	590	71%
Country group B	106	17%	188	27%	204	24%
Country group C	63	10%	39	6%	40	5%

Table 2 shows that the increase in the number of ranked universities from 635 in 2009 to 824 has strengthened primarily the group B, whose weight increased in 2013 by 7%. Countries of this group started to pay closer attention to the quality of the national higher education and encourage the participation and promotion of their universities in the world rankings.

Table 4 presents the countries, having at least 10 ranked universities by the end of 2013, whereas Figures 1 and 2 present the countries of groups B and C.

Table 3. Countries of the group A

Country	2009	2011	2013	Country	2009	2011	2013
USA	130	129	144	South Korea	18	22	24
Great Britain	53	54	69	Brazil	7	11	22
Germany	45	43	42	Spain	16	13	18
France	40	33	40	Russia	8	12	18
Japan	35	32	38	Argentina	4	8	16
Australia	25	25	31	Taiwan	12	11	15
Canada	20	20	26	Netherlands	13	14	13
Italy	22	19	26	Mexico	3	8	12
China	13	23	25	India	12	12	11

These tables reflect the increased competition in the global educational market. Worldwide leaders of education, such as the USA and the UK, showed growth trend by 11% and 30%, respectively. However, much more impressive results are observed in Asian and South American countries: the number of universities in China increased by 92%, in South Korea – by 33%; Brazil has a growth rate of 314%, while Argentina and Mexico have achieved fourfold growth. Representation of Russian universities in the QS World University Ranking has grown from 8 to 18, i.e. by 125%. And this is not nearly a limit, as not all of our universities have realized the importance of international ranking and even did not submit applications to the leading rating agencies.

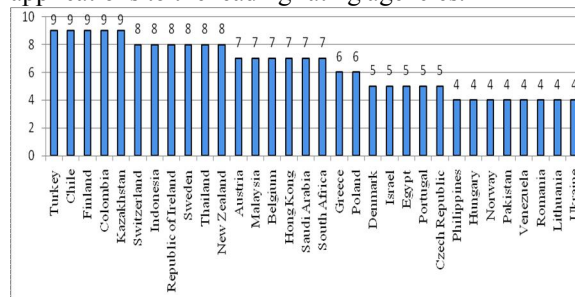


Fig.1. Counties of the group B

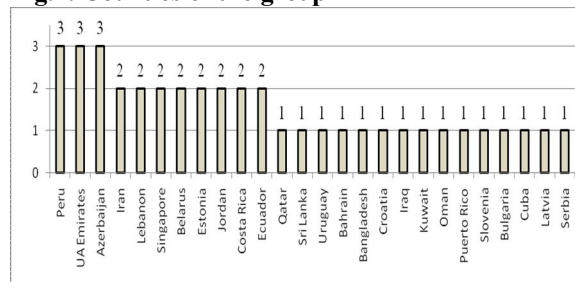


Fig.2. Counties of the group C

Countries of the groups B and C are involved in the "drag race" to the best of their own strengths and capabilities, and, for sure, these capabilities yet have not been exhausted.

It is very important for Russia to be involved in the world rankings, since this contributes to the outlook of the national education, recognition of diplomas of Russian universities, as well as attraction of foreign students and teachers.

These issues are in the full glare of the leaders of our foremost universities. For example, in the course of multimedia video conference "Moscow - St. Petersburg - Tomsk - London", conducted by the RIA-Novosti news agency and dedicated to the results of the 2013 QS university global ranking, chancellor of the St. Petersburg State University A.I. Rudskoy noted that participation in the ranking turns the university upon success and helps to solve three important tasks [5]:

1. State funding of the university.

As part of the support program on leading universities development, in 2006-2013 Russian government has allocated 97.5 billion rubles. In 2013, the budget of the Russian Ministry of Education and Science amounted to 391.8 billion rubles, of which 188.7 billion rubles were allocated to Russian universities. While to implement the program "5-100-2020", aimed at promoting the five Russian universities into the world education leaders, the state has allocated another 9 billion rubles for five years, plus grants, which were given to universities on a competitive basis and aimed at the invitation of leading scientists, development of innovation infrastructure and cooperation with enterprises in terms of innovative solutions.

2. Academic activities at the international level.

Internationalization of almost all university activities is a key aspect for its entrance to the international arena, especially in terms of ranking. World level is unattainable for the university, which does not have a developed system of academic mobility and successful international projects. According to the Russian Ministry of Education and Science, the average number of foreign students is just 3%, while this indicator of today's international ranking leaders stands at 10-15%. Note that in terms of a number of students, participating in the academic mobility programs in Russian universities, there is a stable positive trend, whereas the proportion of foreign teachers is still only 1%. To achieve worthy ranking scores, it is necessary to expand the scope of educational curriculums in foreign languages, increase the number of international research and education centers, and provide effective advertising of university achievements that undoubtedly will increase the influx of foreign students and teachers.

3. Outlook of employers

Availability of high-tech research equipment, competent scientists and the development of new technologies at the university make it possible to establish active contract-based cooperation with various industrial enterprises. This type of cooperation will allow universities to establish special laboratories for carrying out tailored R&D, license of new technologies in the framework of the contract, etc. All these activities predetermine a high standing of the university among employers.

In addition to the implementation of these comprehensive tasks, the university must mobilize reserves to stimulate research and publication activity of each teacher and researcher.

Discussion

Relevance of continuous monitoring of the world rankings is confirmed by a large number of

scientific papers. This subject is studied in various aspects. Thus, a number of papers examine the root causes of rankings and their transformation in the era of globalization from academic research to commercial information resources, and further - to the university competitions in the context of their outlook [6, 7]. Other authors pay attention to the education quality in national universities and their presence in the international rankings [8, 9]. In recent years, this subject became of interest to Russian scientists as well [10, 11].

The analysis, carried out in the article, allows us to represent the distribution of ranked universities not only across the countries, but also across the continents (Fig. 3, 4, 5).

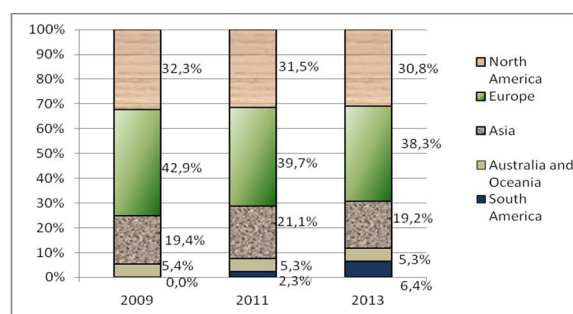


Fig. 3. Universities of the A group countries across the continents

It is evident from these pictures that European universities are represented in all three groups. Along with the recognized world education centers, such as Great Britain, France and Germany, the universities of even relatively small countries strive to make progress in the leading rankings, thus obtaining excellent advertising space. Not by coincidence, according to UNESCO, 52% of all students, studying abroad, have chosen universities in Europe. South America has made significant advance in the ranking: whereas in 2009, no one country in the region had more than 10 ranked universities, in 2013, 22 universities in Brazil and 16 universities in Argentina were ranked in the A group.

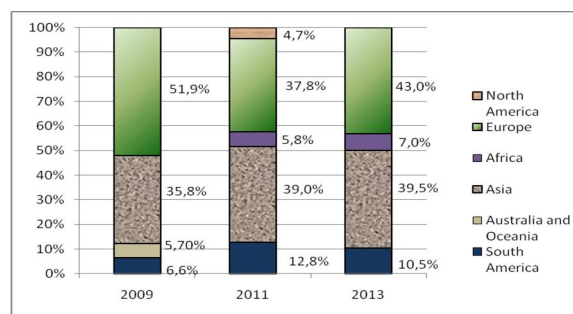


Fig. 4. Universities of the B group countries across the continents

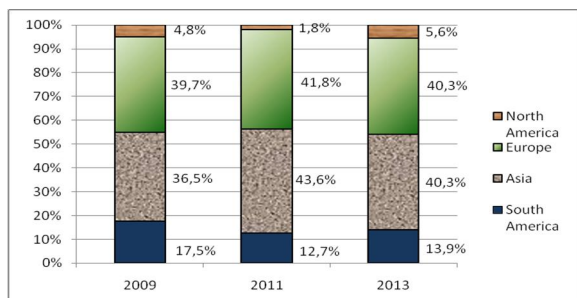


Fig. 5. Universities of the C group countries across the continents

Summary

Each higher educational institution faces a challenge to create within the next 5-7 years a new, free, dynamic, and globally competitive environment that would attract both world-renowned scientists and the most talented students from all over the world. Such an environment should include prestigious educational curriculums, scientific research, frequently cited publications, custom project developments for the global industry leaders, and finally, the ability of free communication in the international scientific and educational environment. To reach this level, university needs a breakthrough in all areas. This is a global race for the best minds of teachers and students.

Today, in order to improve competitiveness and to enter into international rankings, the priority areas of the university development include the following measures: improvement of the university intellectual potential, attracting leading scientists and teachers, as well as advancement of academic mobility, support for young scientists, the international promotion of the research and innovation, and finally, worthy incentives to teachers and researchers to improve their performance.

Russian universities are entrusted with a task to be solved: they should not only reach the world standards, but become leaders of the global educational community and set their own standards.

Conducted research shows that the world best university rankings, originally compiled as guidelines in the educational space, turned into an arena of intense competition, became a global strategic tool in the global educational market. Realization of the important fact of being represented in the world ranking comes gradually. More and more countries from different continents consider the ability of being involved into the international ranking as a national priority. Striving for the promotion in the ranking stimulates both the increase in quality of the higher

education institution, and the development of innovative scientific ideas in the universities of different countries. The authors did not touch upon by no means unimportant issue, such as priority guidelines for higher education and research in different world regions. Future study requires more detailed investigation of the most developed research areas in universities around the world.

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