Management Decisions in the Area of Russian Universities Competitive Growth

O G Zlobina¹, O I Nekrasova¹, V V Komarova¹
¹Far Eastern State Transport University, Khabarovsk 680021, Russia

E-mail: Nekrasova.O.I@yandex.ru

Abstract. The relevance of the topic is proven by the fact that increasing the competitiveness of Russian universities in the international educational market not only enhances the attractiveness of the national education system, but also enhances the country's position in the world community. Modern tendencies of transformation of the Russian market of educational services as one of the most dynamically developing areas are considered in the article. Russian universities positions in international rankings are analyzed. The research revealed that the Russian universities compete with other universities of the world, but it is necessary to make a number of management decisions which would increase their competitiveness among the world's leading educational organizations. In conclusion, implementation of complex projects for the modernization of Russian education, accompanied by the creation and implementation of advanced models, programs and technologies, is perhaps the most efficient and effective way to use financial resources in order to increase the competitiveness of Russian universities not only at the national level, but also in the international education market.

1. Introduction

Today the market of educational services is one of the most dynamically developing field. It appears as a complex system comprising a large number of interacting and interdependent economic agents. In modern conditions it undergoes significant changes; the social requirements to the professional education quality increase, learning technology are continuously updated, higher education institutions (HEI) activities and its economic conditions are changing, the competition between universities becomes more intense.

If the modern University is able to compete not only with Russian, but also foreign universities, it reveals itself as a large scientific and educational complex, with complex structure, which includes institutions (faculties) and departments, labs and research centers, libraries, information services, administrative units, student hostels, private University, production centers. The external and internal environment within which the University operates, includes a large number of factors that management should take into account (Fig. 1).

The challenges facing universities are multifaceted. Undoubtedly, one of the major challenges is considered a high-quality training of highly qualified workforce which is able to solve professional tasks. That will help them to realize themselves in the profession and be competitive in the labor market. Graduate with a high level of training and demand on the labour market is an indicator of effective educational institutions.
2. Competitiveness of the Russian universities

Improving the efficiency and quality of education is one of the basic directions of the state policy implementation. [6] There are various criteria with the help of which it is possible to evaluate the University successfully operating at the market of labour and educational services, and holding high positions in the ranking of universities.

Starting from 2013, Russia is monitoring the effectiveness of educational institutions of higher education annually [3]. The aim of the evaluation is to obtain full and reliable information about the current status of all activities of the University, which is required for making reasonable management decisions aimed to improve the efficiency and quality of services in the education field.

In this regard, every educational institution of higher education is committed to the implementation of the threshold values of each target performance indicator activities (Table 1).
Table 1. Key performance indicators of universities.

| №  | Indicator title                        | Threshold value                  |
|----|----------------------------------------|----------------------------------|
| 1  | Educational activities                 | Final exam GPA 60 points          |
| 2  | Research activities                    | The amount of research and       | 70,1 thousand rubles. |
|    |                                        | development work per employee    |                                |
| 3  | International activities               | The percentage of foreign        | 1%                             |
|    |                                        | students to total number of       |                                |
|    |                                        | students                         |                                |
| 4  | Financial activities                   | The educational organization      | 1566,11 thousand rubles.       |
|    |                                        | income per employee               |                                |
| 5  | Teaching staff salary                  | The percentage of staff salaries  | 150 %                          |
|    |                                        | to the average salary in the      |                                |
|    |                                        | region                           |                                |
|    |                                        | The percentage of graduates       | 70 %                           |
|    |                                        | employed in the year following   |                                |
|    |                                        | the graduation year to the total  |                                |
|    |                                        | number of graduates               |                                |
| 6  | Employment                              | The proportion of student-        |                                |
|    |                                        | athletes, the percentage of       |                                |
|    |                                        | employees with state awards,      |                                |
|    |                                        | the proportion of students on     |                                |
|    |                                        | programs of qualification         |                                |
|    |                                        | improvement and professional      |                                |
|    |                                        | retraining, etc. 2,87 %            |                                |

Source: compiled by the authors according to [3], [9]

In the monitoring of 2017, 769 universities and 692 branches participated. The results are presented in Figure 2.

Figure 2. 2017 Monitoring results.

The importance of Russian universities teaching effectiveness assessment arises from the growing competition in the market of educational services. Its results play an important role in establishing and maintaining the University's image as a market participant, and appear as a factor of attraction the greatest number of applicants. This is because students in higher education have the opportunity to
familiarize with the learning environment, the quality of educational and research activities, development of academic mobility and other aspects of University activities.

Improving the attractiveness of Russian universities in the global education market not only increases the competitiveness of national education system, but also strengthens the country's position in the world community. International rankings are an important component of assessing a country's economic development and human assets. Ratings allow you to assess the condition of the domestic system of education on the international education market.

Table 2. The positions of Russian Universities in international rankings, 2017.

| №   | Positions | The Name of the Russian University                        |
|-----|-----------|------------------------------------------------------------|
|     | ARWU (TOP-500) |                                                         |
| 1   | 93        | Moscow State University                                   |
| 2   | 301-400   | Saint Petersburg State University                         |
| 3   | 401-500   | Novosibirsk State University                              |
|     | QS World University Rankings (TOP-500) |                                                     |
| 1   | 108       | Moscow State University                                   |
| 2   | 258       | Saint Petersburg State University                         |
| 3   | 291       | Novosibirsk State University                              |
| 4   | 306       | Bauman Moscow State Technical University                  |
| 5   | 350       | Moscow State Institute of International Relations          |
| 6   | 350       | Moscow Institute of Physics and Technology                 |
| 7   | 377       | Tomsk State University                                    |
| 8   | 400       | National Research Tomsk Polytechnic University             |
| 9   | 401-410   | National Research Nuclear University MEPhI (Moscow Engineering Physics Institute) |
| 1   | 411-420   | National Research University Higher School of Economics   |
| 0   | 420       | Peter the Great Saint-Petersburg Polytechnic University   |
|     | The Times Higher Education (TOP-500) |                                                     |
| 1   | 188       | Moscow State University                                   |
| 2   | 301-350   | Moscow Institute of Physics and Technology                 |
| 3   | 351-400   | ITMO University                                           |
| 4   | 401-500   | National Research University Higher School of Economics   |
| 5   | 401-500   | Kazan (Volga region) Federal University                   |
| 6   | 401-500   | National Research Nuclear University MEPhI (Moscow Engineering Physics Institute) |
| 7   | 401-500   | Novosibirsk State University                              |
| 8   | 401-500   | Moscow State University                                   |

Source: compiled by the authors according to [4],[7], [8]
In order to ensure the high quality of Russian education in accordance with the changing needs of the population and ensuring its competitiveness in the global education market, and improving the national education system in the world rankings, in 2012 the Russian Government, according to [6] defined the main directions of education development in the Russian Federation until 2020.

Currently, one of the famous and influential international rankings of the best universities in the world are:

1. ARWU (Academic Ranking of World Universities) was created in 2003 by the Institute of higher education of Shanghai University;
2. QS World University Rankings was developed by the British consulting company Quacquarelli Symonds in 2004.
3. The Times Higher Education is calculated by the Times Higher Education magazine since 2010. [5]

The position of Russian universities in international rankings according to the researches of 2017 is presented in Table 2.

The analysis of positions of Russian universities in international rankings revealed that they compete with other world universities. According to QS in 2016, Russia took 26th place among the countries with the best higher education system. Among the leaders are USA, UK, Germany, Australia and Canada. QS also introduced the "ranking of the best universities in the world: BRICS" (World University Rankings: BRICS - a group of five large developing countries: Brazil, Russia, India, China and South Africa) to 2018.

With that ten Russian universities have entered top-50 of the rating. Moscow state University named M. V. Lomonosov took 5th place in the prestigious ranking, Novosibirsk state University has occupied 11th place, Saint-Petersburg state University is on 13th, Tomsk state University is on 26th, the Moscow physical-technical Institute is on 28th. [4]

One of the management decisions for improving the competitiveness of Russian universities in the international education market can be attributed to the publication of the presidential Decree from 7th May, 2012 № 599 "About measures on realization of state policy in education and science". According to [10] the task is to ensure the entrance of at least five Russian universities in the first hundred leading world universities according to world ranking of universities by 2020.

Solving the problem will be possible with the implementation of the action plan for the development of the leading universities for increasing their competitiveness among leading research and educational centres, which was approved by the decree of the Government of the Russian Federation of 29th October 2012, No. 2006-p. [11]

To ensure a qualitative breakthrough in improving the competitiveness of leading Russian universities, the project with the working title "5-100" was launched. Implementation of the project "5-100" will help to modernize the system of higher education, scientific research and development. With this project it will be possible to replicate the significant effects of the project on the entire system of higher education in general. [12]

It is good to mention that during the last years the Russian Government has taken serious steps to modernize and improve higher education, improve its quality, the integration of Russian professional education into the international educational space. First of all, it expresses in the entry of Russia into the Bologna process, increasing the flexibility of educational programs, overcoming an early specialization, the implementation of Federal state educational standards, which implies a greater autonomy of educational institutions and the possibility of building individual educational pathway for students [13].

Analyzing management decisions, taken by the Russian Government in enhancing competitiveness of Russian universities, we can distinguish the main ones:

1. The policy of optimization of the network of educational institutions of higher education, implemented by the Ministry of education and science of the Russian Federation.
2. The monitoring of the effectiveness of educational institutions of higher education implementation, the aim of which is to develop statistical and analytical materials on the basis of
information about educational institutions and indicators of their effectiveness for future decision making in relation to universities and their branches.

3. Implementation of the State program "Development of education for 2013-2020", the purpose of which is to ensure the high quality of Russian education in accordance with the changing needs of the population and long-term tasks of development of Russian society and economy; improving the efficiency of realization of youth policy according to the interests of innovative socially oriented development of the country.

4. Implementation of the Federal target program of education development for 2016-2020, the purpose of which is to create conditions for effective development of Russian education aimed to ensure access to quality education that meets the requirements of modern innovative socially oriented development of the Russian Federation.

5. Implementation of the project "5-100" aimed to maximize competitive position of the group of leading Russian universities in the global market of educational services and research programs.

Thus, it is possible to draw the following conclusion. The implementation of a set of integrated projects with associated goals and objectives, allowing to implement promising breakthrough development for the creation and implementation of advanced models, programs, technologies and solutions in the field of education, is perhaps the most effective and efficient use of financial resources to achieve the goals and objectives of socio-economic development of the Russian Federation. In particular, this is an increase of the level of competitiveness of Russian universities not only at the national level, but also in the international education market.

References
[1] Academic ranking of world universities http://www.shanghairanking.com/arwu 2017.html
[2] Quacquareli Symonds World University Rankings https://www.topuniversities.com/ university-rankings/brics-rankings/2018
[3] The world university ranking https://www.timeshighereducation.com/
[4] Belinskaia M 2013 Factors of the state educational institutions competitiveness assessment Bulletin of SSU 1 pp 20-26
[5] Goryunov I 2014 Integrated Management System as a Factor of Increasing the Competitiveness of a Modern, International scientific-practical conference (Chelyabinsk) http://izron.ru/articles/perspektivy-razvitiya-ekonomiki-i-menedzhmenta-sbornik-nauchnykh-materialov-po-integrirovannyaya-sistema-menedzhmenta-kak-faktor-povysheniya-konkurentosposobnosti-sovremennogo-vuza/
[6] State program "Development of Education" for 2013-20206 http://base.garant.ru/70643472/#ixzz4zUn7jxPb
[7] Kostyuchenko A 2017 Russian universities in international rankings Young Scientist 22 pp 170-172
[8] Monitoring 2017 http://indicators.miccedu.ru/ monitoring/?m=vpo
[9] The goal of Project 5-100 is to maximize the competitive position of a group of leading Russian universities in the global research and education market http://5top100.com/
[10] The Government of the Russian Federation from May 23 2015 stopping N 497 "On the Federal Targeted Program for the Development of Education for 2016-2020" http://base.garant.ru/71044750/#ixzz4zVJhYO9d
[11] 2017 The attractiveness of Russian universities in the international market of educational services Bulletin of the Udmurt University 3 pp 21-26
[12] The order of the Ministry of Education and Science on August 1 2013 637 "On monitoring the effectiveness of educational institutions of higher education" https://www.base. garant.ru
[13] Decree of the President of the Russian Federation of May 7 2012 No 599 "On measures to implement state policy in the field of education and science" http://base.garant.ru/70170946/#ixzz4zUxJ1h4I