Ranking assessment of the competitiveness of agricultural universities

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Abstract. Ranking is one of the tools for assessing the competitiveness of universities. There are regional and world rankings of agricultural universities and agricultural sciences. The QS World University Rankings is one of the most influential global university rankings. Only universities that offer all levels of education are included in the QS rating: bachelor’s, master’s and doctoral degrees (or postgraduate studies in Russian practice). At the same time, the university should comprise at least two of the five areas of knowledge: the humanities and arts; engineering and technical sciences; natural sciences; medicine and life sciences; social sciences and management. Evaluation of the best universities in the world in the ranking is based on six criteria: academic reputation (an indicator based on a survey of professors and teachers); reputation among employers (invitations to participate in the survey are sent to companies of all industries ranging in size from one hundred employees and above); the ratio of teaching staff to the number of students (the source of this data is information provided by the universities themselves); citation index (the ratio of the number of published scientific publications to the number of teachers and researchers for whom the university is the main place of work for at least one semester); the proportion of foreign students (reflects the degree of attractiveness of an educational institution in the international arena); the proportion of foreign teachers and scientists (employees who have worked for at least three months, taking into account the percentage of the rate, are taken into account). The article analyzes the methodology of the QS World University Rankings by Subject: Agriculture & Forestry and Veterinary Science. The author gives an assessment of the best universities according to the rating agency QS. The results of this study can be used by top management of agricultural universities in the designing of growth strategy.

Keywords: Agriculture, Veterinary, Science, Competitive ability, Management, Ranking.

Introduction

The competition of universities today is based on the ranking results of global rating agencies, such as QS (www.topuniversities.com), THE (www.timeshighereducation.com) and ARWU (http://www.shanghairanking.com). It should be noted that the Ranking by Subject for Agriculture exists only in QS and is called "Agriculture & Forestry”. 954 universities took part in this ranking in 2018 and 300 of them got a place in the ranking. It is necessary to clarify that from 1 to 50 place universities are ranked very accurately, and from 50 the place of the university is determined by groups of 50 universities, that is 50-100; 101-150, etc. This indicates a high density of university assessment results. As a result, we can conclude that there are leaders of universities, and their level of
competitiveness is much higher than that of most universities, while the rest have such close indicators that it is extremely difficult to distinguish between them. The first 10 universities of this rating are presented in table 1.

Table 1. The first 10 world universities of the «Agriculture & Forestry» ranking

| Place | University                                           | Country          |
|-------|------------------------------------------------------|------------------|
| 1     | Wageningen University                                | Netherlands      |
| 2     | University of California, Davis                      | United States    |
| 3     | Swedish University of Agricultural Sciences          | Sweden           |
| 4     | Agro, ParisTechMore                                  | France           |
| 5     | ETH Zurich - Swiss Federal Institute of Technology   | Switzerland      |
| 6     | Cornell University                                   | United States    |
| 7     | University of California, Berkeley (UCB)            | United States    |
| 8     | University of Wisconsin-Madison                      | United States    |
| 9     | University of Reading                                | United Kingdom   |
| 10    | China Agricultural University                        | China            |

The indicators for assessing the level of competitiveness in the "Agriculture & Forestry" rating include: Academic Reputation – weight is 50 points; Employer Reputation – weight is 10 points; Citations per Paper – 20 points; H-index – 20 points.

Methods and Results

Let's look at the indicators of Wageningen University in the Scopus database. It should be noted that the evaluation of the publication activity of the rating agency is conducted on the basis of Scopus. Data on publications are presented in Figure 1.

Figure 1  Evaluation of the publication the Wageningen University
As you can see Wageningen University actually in general concentrated on publications from the subject Agriculture. That is, this Subject represents a university focused on a specific industry. But despite this, the Wageningen University occupies a very high place in the QS World University Rankings, namely 125. This suggests that industry universities have every chance to occupy high places in the QS World University Rankings.

We will analyze the successful universities that occupy high positions in the ranking. for example, Peter the Great St.Petersburg Polytechnic University after it reached 403 place in the QS World University Rankings increased the number of foreign students. The increase in the number of foreign students up to 8% allowed to increase the budget by 4 million 250 thousand euro. Other advantages of promoting the university in the ranking were the increase in university funding from the state and the growing number of foreign partners who are interested in purchasing university products and services.

Pay attention to the rating methodology. For example, such indicators as citations do not take into account by whom and to what type of publication reference is made. Rating agencies are able to compare citations in different areas so that areas with a smaller number of citations do not lose to areas with a greater number of citations, for example, engineering and history. But for the rating it is not important to citing a monograph or a work from a conference, an article from a leading world magazine or a young journal. The Nobel laureate or bachelor, who speaks at a youth conference, also citing the work. Such a rating system is both good and bad. It is important that your research work is noticed and no matter who. Because of this rating methodology, universities that have just started submitting their data are trying to increase quantitative, rather than qualitative, indicators as quickly as possible. As a result, we are seeing both a sharp increase and a sharp drop in many universities. What is the reason? At the beginning, the university administration sets the priority task of working out the “correct” model of an effective contract. So, for example, you can advise the university to set one of the tasks - 12 citations from each researcher per year. This will allow a sharp rise in citation rates. Targets are actually determined for each group of university staff. This gives a very good result and the university begins its promotion in the ranking, but if it does not build a system for assessing the quality of the indicators achieved, as in the example with the citations, the stability of the university promotion will be broken. That is, if you do not deal with the quality of articles, do not assess who cites and reads you, if scientific schools are not formed, then a sharp increase in the number of citations will be a one-time rather than a permanent one. The same thing happens with reputation. It turns out that for stable growth and improving the competitiveness of the university it is necessary to build stable development systems, both in PR management, and in educational and scientific areas.

Conclusion

High places in the rankings, it is not only the prestige of the university, but also a very specific earnings. And the growth of this earnings is associated with both an increase in the number of students and an increase in the education fee. You need to understand that universities around the world compete with each other. And this competition to faculty members and researchers, administration and students. High place in the ranking allows you to attract the best staff and the best students.

According to the rating methodology, the university must first think about its reputation. At the start there is a need to revise the approach to an effective contract. The definition of indicators for faculty members and researchers will help build the necessary system for the promotion of the university. But later it is important to build a corporate culture of the university such that the quality of teaching and the quality of research will be a priority. Otherwise, you can only increase the numerical indicators of the university, for which there are no sufficient grounds, and the university will always rise in the ranking, then lose its position again.

Discussion

It should be noted that the rating cannot measure the quality of education. As you can see in the rating model there are reputational ratings of experts, and these ratings have considerable weight. Only an expert can assess the quality of education and the level of university graduates. But how can an expert
be objective? How many universities has he attended and how well does he know the level of graduates? This remains on the conscience of an expert, the reasons for choosing an expert from the best universities are not always clear. In Russia, there is a rating of demand for university graduates, the strangest thing in this rating is that the data from the employment services, which show how many graduates are employed, weighs much less points than quoting university research papers. It is strange that rating agencies even having information about the employment of graduates do not give it significant weight. Therefore, applicants should conduct more intelligence operations about the university where they want to go, than simply analyzing the university’s position in the ranking.

For universities, a high position is primarily international recognition, advertising, prestige. All these things work on the budget of the university, but it should be understood that promotion in the ranking will force universities to change their development policy: analyze publications, invite leading scientists, advertise the university in news and journalistic programs.

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