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TÍTULO: “Océano azul” para una escuela superior.

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RESUMEN: El estudio estudia la posibilidad de utilizar la "estrategia del océano azul" propuesta por W. Chan Kim y Renée Mauborgne para una escuela superior. El Distrito Federal de Volga es elegido como el mercado para la educación superior. El documento propone una trayectoria de desarrollo universitario sobre la base de la "estrategia del océano azul". Los valores para un potencial solicitante son reconstruidos. El artículo considera la transformación de las universidades al modelo “Universidad 4.0”.

PALABRAS CLAVES: estrategia océano azul, escuela superior, trayectoria de desarrollo universitario, universidad 4.0.

TITLE: “Blue Ocean” For A Higher School.

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ABSTRACT: The paper studies of the possibility of using the “blue ocean strategy” proposed by W. Chan Kim and Renée Mauborgne to a higher school. The Volga Federal District is chosen as the market for higher education. The paper proposes a university development trajectory on the basis of the “blue ocean strategy”. The values for a potential applicant are reconstructed. The paper considers the transformation of universities to the model “University 4.0”.

KEY WORDS: blue ocean strategy, higher school, university development trajectory, University 4.0.

INTRODUCTION.

The 20th century observed the change of goals and objectives of the Russian higher education system. The growth of interest in higher education in the USSR, as an instrument for solving the technological breakthrough problem, began in the 1950s.

The next surge happened in the 90s when employers required certified staff, and this level of education became a generally accepted norm. At present, there is a slight decrease of interest in higher education and its increase in secondary vocational one.

In the modern economy, higher education can be viewed as a separate market with its inherent attributes. Territorial reference of consumers to the service provider can be regarded as a specific

feature of the market. Thus, many factors, among which the dominant one is income level, do not always allow consumers to receive services in other regions of the country and abroad.

Let's consider the parameters of the market of educational services of the Volga Federal District (VFD). There were 131 higher educational institutions in the district in the academic year of 2015/16. At the same time, 95 were state-owned (72.5%) and 36 were non-state ones (27.5%). In the district, there are 228 branches of universities. The student body is over 900 thousand people. As the average annual cost of education is 75 thousand rubles (Stoimost, Rossii, 2016), the annual volume of the market of higher education in the Volga Federal District amounts to more than 43 billion rubles. Recently competition among universities has increased significantly. The concept of "university specialization field" has been levelled out. The modern legislation allows universities to license any educational program.

Universities, as players in the educational services market, have to create additional competitive advantages to increase the number of clients. The main limiting factors in this sphere are: "the result of the USE" and "tuition fee", as these values are subject to government regulation. Apart from that, universities are free to form their own strategies.

In 2005, W. Chan Kim and Renée Mauborgne published the book "Blue Ocean Strategy" (hereinafter BOS – Blue Ocean Strategy) (Kim and Mauborgne, 2005). The authors' work is based on the study of 150 strategic moves spanning more than a hundred years and thirty sectors of the economy. The authors argue that to achieve lasting success, companies need not beat the competition but create "blue oceans" - an uncontested environment.

DEVELOPMENT.

The aim and objectives of the study

The aim of the study is to assess the possibility of using BOS for higher education.

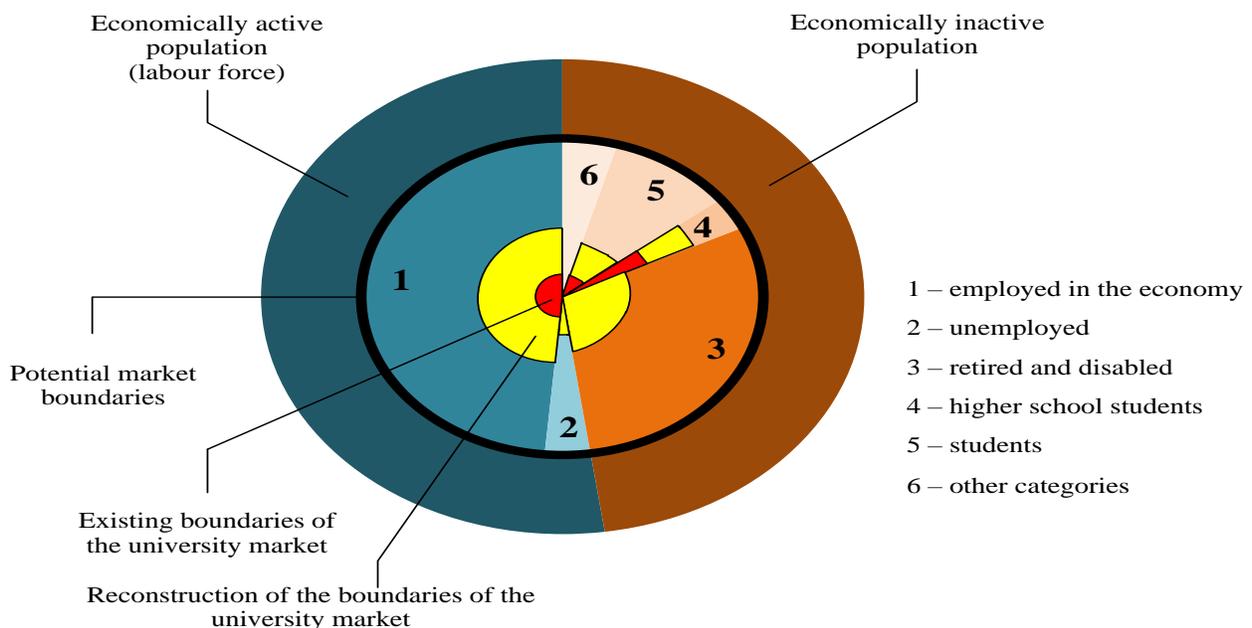
In terms of increased competition, the use of BOS will allow determining the trajectory of the university. To achieve the aim, the following objectives were set and attained:

- Reconstruction of the value elements for the customer of the educational service;
- Reconstruction of the value elements for the applicant;
- Reconstruction of the boundaries of the educational services market;
- Determination of the university development strategy on the basis of BOS.

Stages of the study and results.

A university needs to create demand to form its own “blue ocean” and not to fight for a client. The priority factors in the competitive environment will stop working in the future “blue ocean”. Fig.1 presents reconstruction of the market boundaries. 1. The main population groups are divided into economically active and inactive. The university traditionally focuses on two main categories (marked by red sectors): potential applicants (basic educational programs - BEP) and working citizens (Continuing education development programs - CEDP). Many universities have also implemented fitting programs for applicants.

Fig. 1 - Reconstruction of the boundaries of the educational services market.

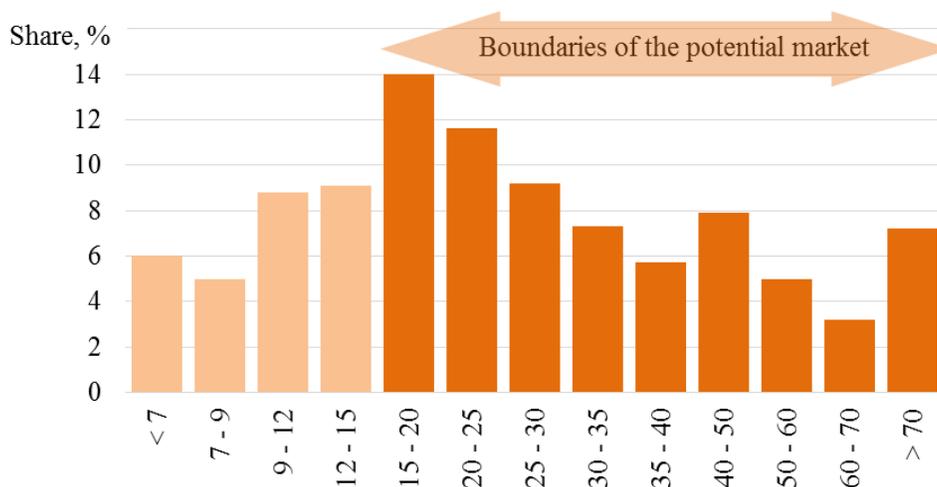


In Figure 1, yellow sectors show the reconstruction of the market boundaries. It includes the unemployed and retired population (CEDP). A range of advanced professional retraining programs is offered for the unemployed. These programs train specialists for the spheres that start their life cycle in the labour market.

Retired people are worth mentioning, as a fairly significant category, which is practically not considered as potential customers by universities. The main reason is the low activity of the latter. However, this category of the market is changing rapidly. Even today, a significant proportion of pensioners are Internet users. Over time, their number will increase. According to the number of estimates, the average age of users of social networks is rapidly growing. We can say that 8-10 years later every second pensioner is going to have accounts in social networks. These are the so-called “nouveau elderly” – socially, physically and mentally active people over 60. It is they who are potential customers of distant learning programs.

Fig. 2 presents the distribution of income per capita among the population of the Volga Federal District according to the statistics. As you can see in the figure, the potential boundaries of the educational services market are quite substantial. BEP and CEDP are available to the population with an average monthly income of more than 15 thousand rubles.

Fig.2 - Boundaries of the educational services market



Reconstruction of the applicant value elements allows breaking the compromise between the growth of the list of educational programs and additional services on the one hand, and cost reduction on the other. In order to create a new value curve, you need to answer four basic questions inherent in the field of higher education (Table 1):

1. R - Rejection. What factors that universities take for granted should be rejected? This question makes us think about rejecting the factors that have long served as customer-forming ones in the industry. They are often taken as for granted, despite the fact that at present they may not have their former value. Most often, recipients of services are waiting for the emergence of new factors that acquire value in the modern world and at the same time are competitive advantages for service providers.
2. D - Decrease. What factors should be decreased well below compared with existing ones in the field? This question enables to find out which factors (services) are too weighty in the standard set and do not provide competitive advantages. In such a situation, universities start an artificial increase in their costs, which has a negative effect on the final result.
3. I - Increase). What factors should be raised well above the standard ones at the university? This issue allows you to enhance and strengthen the role of the existing factors that have a positive impact on competitive advantages and create a background for the formation of the new ones.
4. C - Creation. What factors that have never been previously proposed by the university should be created? This question helps discover completely new sources of value for consumers of services and create demand for them.

Table 1 - Model of factors for the reconstruction of value elements.

	Rebooting (major changes)	Setting (minor changes)
Eliminating some existing values and reducing the role of existing ones	R - rejection	D - decrease
	<ol style="list-style-type: none"> 1. The traditional system of mid-term assessment (tests and exams). 2. The rigid framework of mid-term assessment. 3. Outdated educational programs. 4. Outdated educational technology. 5. The concept of “higher education” - as the final product. 6. The prevalence of the value of “diploma” over “competence”. 7. Ignoring the benefits of additional education. 8. Paper coursework and tests 	<ol style="list-style-type: none"> 1. The share of class work 2. The volume of the academic workload of the academic staff 3. The level of conservatism of the academic staff 4. The number of support staff
Creating new values and increasing the role of existing ones	C - creation	(I - increase)
	<ol style="list-style-type: none"> 1. Obligatory obtaining of a working profession. 2. Own electronic library system. 3. Institute of mentoring according to the teacher-student scheme 4. Gamification of the learning process 5. A wide range of advanced master degree programs 6. A wide range of advanced programs of secondary vocational education 	<ol style="list-style-type: none"> 1. The role and volume of extracurricular activities 2. The role and volume of students’ self-study in the electronic information educational environment 3. Interaction of teacher-student in the EIEE.

Meeting the objectives “R + D” will reduce costs compared to competitors’. As a rule, university development programs include the introduction of new projects. This is associated with increased business processes and increased costs. Creating a new value system requires, on the contrary, their reduction.

Meeting the objectives “I + C” will increase the value for the applicant and create new demand. As a result, the university will be able to offer new opportunities, while maintaining low costs.

A model of factors was developed (Table 1) within the study on the case of the Samara State Transport University. A reference group was used to build the model. Using the developed model will allow the university to create new demand. This will be a new university, different from the existing ones. There won't be many elements traditional for higher schools. For example, the traditional term exams and lectures, when you have to make notes after the teacher.

The key point of the developed model is the role of the research and academic staff (RAS). The traditional approach used in universities entrusts the staff with two main tasks.

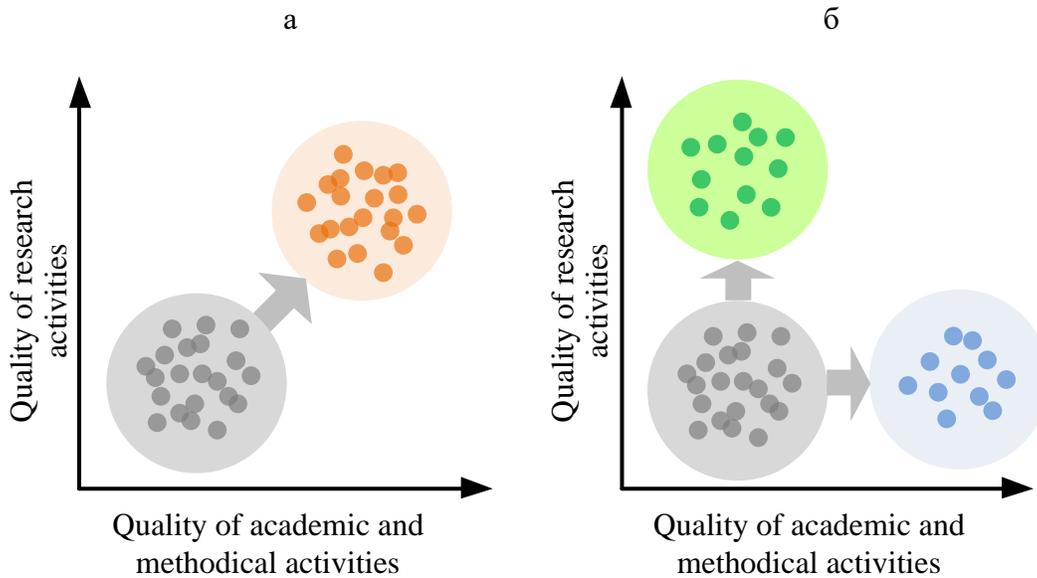
The first task is research. The effectiveness of this work is estimated by scientometric indicators: the number of publications, citation index, amount of funds raised from the research projects, etc. The problem of most universities is that, with the increasing intensification of labour, this work becomes of secondary importance. As a result, efficiency falls and there is a decrease in key indicators of the university's performance.

The second task is academic and methodological activity. This involves not only conducting classes (practical and seminar classes, laboratory work, practice, etc.), but also methodological support for educational programs. As a rule, methodological documentation is kept under close review by the supervisory authorities. These are the subject's syllabuses, assessment tools banks (ATB), programs for competences formation, etc.

Most universities solve the tasks of improving RAS or they are rather trying to solve, by improving the quality of scientific and academic activity at the same time (Fig. 3, a). In fact, they are trying to make a "super-employee" out of the RAS. This may not always be justified, because it involves considerable efforts, including financial ones. Besides, at the initial stage of development, most universities not included in the TOP-10 will not cope with it.

Fig. 3 - Improving the research and academic staff of the university:

a - traditional approach, b - proposed approach



Costs reduction can be achieved through a new approach. It proposes a division of research and academic staff into two categories (Fig. 3, b): scientists and teachers. The first category is not engaged in academic and methodical work, their task is to ensure high scient metric indicators of the university. They are not engaged in midterm assessment, courses, practical classes and laboratory work. Their task is stream lectures. The second category provides educational and methodical work. They are the ones who prepare subject syllabuses and assessment tool banks.

The costs of the university, in this case, are reduced due to the reduction in the costs of advanced training and the costs of participation of the academic staff in scientific conferences, including overseas ones.

Let's look at how the development trajectory of a university using BOS will look like. As a rule, in each university, there is a long-term (10-15 years) development strategy. Key elements of the strategy are objectives and activities. The model of the factors described above is proposed to be included in the strategy as a basis. This will be the skeleton of a long-term development program. The program will include subprograms; the main ones are described below:

1. A subprogram for the development of human resourcing for educational programs. It is necessary to describe the strategy for raising the level of scientists and teachers. It is necessary to ensure guaranteed compliance with the requirements of educational standards in terms of staffing.
2. A subprogram for the development of university facilities, including teaching and laboratory equipment. Most educational standards have requirements for computer labs, the Internet, specialized classrooms and classrooms for students' self-study. It is necessary to ensure guaranteed compliance with the requirements of educational standards in terms of logistics.
3. A subprogram for the information development. To implement BOS, it is necessary not only to enhance the role of the electronic information educational environment (EIEE). It is necessary to bring it to a new level. In a new university, every student is primarily his portfolio. All university resources should be available through his/her personal account. EIEE should ensure maximum transparency of training.

Analysis results.

Competition among universities is growing rapidly. Paraphrasing the phrase of W.E. Deming (Neave, 2011), you can say "Universities don't have to change, their survival is not mandatory". Let's study the dynamics of university changes in course of society and technology development (Efimov, Lapteva, 2017).

Analyzing the factors at the stages of university development, it can be concluded that a fundamentally new approach to the university is needed. In the first three stages, the university acted as a system independent of students. The model "4.0" puts the student in focus. Students use the university environment as a resource for their self-development. That is the key change.

The factors of “University 4.0” correspond to the expectations from the reconstruction of the value elements in accordance with BOS. The university eliminates the traditional approaches used for centuries. New educational technologies come. The university becomes an environment and infrastructure platform for collective intelligence.

Table 2 - The dynamics of university development

Factor	University 1.0	University 2.0	University 3.0	University 4.0
Phase	Pre-industrial phase	Industrial phase	Post-industrial phase	Cognitive phase
General characteristics of the stage	The university teaches actions on the model. A person reproduces. The product is a consumer good.	The university teaches technology. A person performs production functions. It creates a mass product.	The university forms competencies. There is an informatization of activity on the basis of digital technologies. A person solves problems (competences). Characteristic products include mass and exclusive services.	The university forms thinking in the terms of mass robotized and hybrid (man-machine) systems and networks. The key productive force is collective and hybrid intelligence. Characteristic products - meanings, ideas, knowledge, abilities.
Values	Values are stable for centuries (communities, cities, denominations, ethnic groups).	Values are stable for the life of a person (family, company staff, nation).	Values change over the life of a person. Blurred boundaries. Networks, “teams” (for a specific task). Social matrix combines cells of different types.	Values are diversified by cultural and value bases and supposed future. Society is the “world of worlds”. New forms of sociality include value communities, multi sapiens, thinking networks, thinking environments.
Learning	Learning involves reading, understanding (lectures, texts), participation in a dispute (expressing his/her own thoughts).	Learning is the development of knowledge through the “educational conveyer”; development of competencies through participation in research.	Learning is an individual educational trajectory, mastering learning outcomes through research and projects in teams and network formats. Digital technologies ensure access to texts, automation of routine work, distant, individualization of education; solid communicative environment.	Learning is participation in the creation of virtual realities and immersion in them; participation in the creation of new practices.
Student	The student joins the process through understanding and his own actions	The student is socialized, professionalized, masters complex forms of intellectual activity.	The student is the subject of trial activity in a wide field of research, design, management, and other practices; a future meta-professional.	The student is a virtual subject of the network. His\her account. Most of the time online. Training is mostly online. Individualization of the learning process.

Factor	University 1.0	University 2.0	University 3.0	University 4.0
University	The university reproduces personal mastery in the intellectual sphere, the identity of the “adept”, the theological picture of the world, a package of values and attitudes (perfection of action, continuity of tradition, “eternal life” through production).	The university reproduces professionalism – a packages of activity techniques; partial activity (subject separation), professional identity, scientific picture of the world, a package of values and attitudes (rationality, individualism, pragmatism, instrumentality, manufacturability).	The university reproduces meta-professional and personal competencies; poly ontology, sociability, a value package and installations (a search activity, willingness to work on problems).	The university is a basic public institution; integrates with society by creating and maintaining thinking networks, thinking environments. Relations within the university and with its partners are positional; conflicts and synergy of meaningful positions. A university is an environment and infrastructure platform for the existence of collective intelligence, multi sapiens.

Synthesis of results.

The transformation of the university into the “University 4.0” format requires significant efforts. Obviously, not all universities can make these changes. The main constraining factor is the staff themselves (9, 10). The academic staff is quite conservative. New approaches are being introduced very slowly. Even now, the majority of universities in the Volga Federal District got “stuck” at levels 1.0 and 2.0. Most often this is typical of industry-based universities. One of the reasons is definitely their field orientation (Zheleznov, Volov, Garanin, 2018; Zheleznov, Volov., Garanin, 2017). The target figures of admission, weak but steady demand for the university on the market allows the university to remain in the “comfort zone” for a long time. The staff doesn’t have to change. And if the management staff is also conservative, then the university is slowly degrading. It is falling behind the rapidly developing market leaders.

The dynamics of the university’s development (Table 2) shows the change of the true needs of the market. The factors corresponding to the university 4.0 reflect the direction of value reconstruction. Transforming universities are keeping pace with the times. They meet the needs of society, live up to

expectations. These universities correspond to the new values of society. In the future, it is the leaders of the movement who will totally dominate the “blue ocean”.

Findings.

Education is one of the most conservative areas. The technologies around us are rapidly changing. Transport, medicine, industry of the beginning of the XX century and today differ so much that it is impossible even to imagine the life of a modern person in the absence of these technologies. However, the technology of education for several centuries has changed insignificantly. We can easily think of a lecturer in front of students. Active and interactive forms of learning have emerged. However, the majority of universities use traditional approaches.

Using BOS brings the university to a new level. Traditional approaches leave. The university ceases to act as a “luggage room” for future members of society. The gap between “digital” students and “non-digital” teachers is being filled. The culture of self-study emerges with the development of forms of early socialization, including students in adulthood. The concept of the “university as a structure independent of students” is replaced by the concept “university — students holding”. Students use the university environment as a resource of self-development in their professional activities.

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