

V International Forum on Teacher Education

## Competitiveness Management of Teacher Training Universities as Part of Higher Education Internationalization Process

Sergey D. Karakozov (a), Denis P. Ananin\*(b)

(a) *Moscow Pedagogical State University, Moscow, Russia*

(b) *Altai State Pedagogical University, Barnaul, Russia*

---

### Abstract

The problem of increasing the levels of competitiveness among teacher training universities in Russia is becoming more and more relevant as Russian education emerges on the international arena. As a result, export of Russian educational services becomes an opportunity that requires seizing. This research paper examines the specificities of internationalization among teacher training universities in Russia as well as the factors that constitute the development of their competitiveness strategy. The paper uses Michael Porter's "diamond model" as the basis for investigating competitiveness. The "diamond model" includes four attributes: factor conditions; domestic demand conditions; related and supporting industries; firm strategy, structure and rivalry. Along with the methods of theoretical analysis, these elements are used in measuring efficiency of Russian teacher training universities against the background of internationalization process. This paper describes the distinctive features of internationalization of education and science in Russian universities and analyzes directions of internationalization as seen in activities of Moscow State Pedagogical University and Altai State Pedagogical University, the two institutions used as representatives of the core-periphery model. The stages of competitive development from Michael Porter's diamond model are adapted for teacher training universities. Based on the adapted data, a set of recommendations is drawn up for developing a competitiveness strategy. The results of the research allow teacher training universities to create a roadmap for developing competitiveness in accordance with their existing potential, resources and specific character of their activities.

Key words: internationalization of higher education, teacher training university, Porter diamond model, management of competitiveness, education export.

© 2019 Sergey D. Karakozov, Denis P. Ananin

This is an open access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Published by Kazan Federal University and peer-reviewed under responsibility of IFTE-2019 (V International Forum on Teacher Education)

---

\* Corresponding author. E-mail address: [denisananin@yandex.ru](mailto:denisananin@yandex.ru)

## **Introduction**

### *1.1. Research motivation*

The process of integration of Russian teacher training universities into the global educational system is accompanied by a number of new challenges. Consequently, the universities require changes in their development strategies. Competitiveness of universities becomes a key characteristic of efficiency of higher education in the context of internationalization. The educational systems is experiencing a change in objectives while applicant target group is expanding and educational programs are being adjusted to international standards in light of the demand on the global educational service market. As a result, there is a growing need in developing and implementing a set of measures for competitiveness management of teacher training education in Russia as a whole and teacher training universities as separate entities.

Since higher education in Russia has been set on a course towards increasing export of educational services (The Concept for Exporting Educational Services of the Russian Federation for the period 2011-2020), the number of foreign students has been increasing as well. In light of these events, an in-depth study of competitiveness management strategies of teacher training universities is required. While studying these strategies, such factors as existing potential of a university, available resources and specific character of its activities must be taken into consideration. Competitiveness management includes all of the elements involved in managing an educational institution: science and research management, marketing educational services, efficient financial management, strategic financial management, global operation management, management of educational process, academic staff and the overall image of an institution. Each of these elements needs to be reevaluated from the point of view of internationalization, which represents the leading trend in higher education and establishes new standards for evaluating management strategies of higher education institutions.

### *1.2. Key definitions*

This paper defines internationalization as the process of creating a global market of higher education services and “the process that takes place on the national, sectoral and institutional levels where the objectives, functions and arrangement of providing educational services exist on an international level” (The Concept for Exporting Educational Services of the Russian Federation for the period 2011-2020).

The existence of a global level of internationalization is further confirmed by Philip Altbach, who defines internationalization as applying international standards to measure efficiency of educational institutions (Altbach, 2018). Kseniya Kuzovenkova provides a thorough comparative analysis of different approaches to internationalization based on the works of Russian (T.L. Stenina, A.A. Shumeiko, V.M. Kuritsin) and foreign researchers (U. Teichler, K. Hahn, H. De Wit, R. Scott, J. Knight). In her research, Kuzovenkova points out the following common features of internationalization: creating and implementing joint educational programs, academic mobility of students, professors and scientists as well as cooperation between educational institutions (Kuzovenkova, 2018).

### *1.3. Research prerequisites*

A trend for internationalization that appeared in the second half of the 20<sup>th</sup> century began its active development along with increasing globalization of national economies and academic systems. Universities went beyond their national context and transferred to the international dimension. Massification of higher education — a sharp increase in the number of students all over the world — became the catalyst for its internationalization. As Martin Trow points out, nowadays a number of countries have seemingly made a

switch from mass higher education (50% of the right age group) to universal access а о всеобщем доступе (80% of the relevant age group) (Trow, 2006). At present, massification of higher education and information technology are the major driving forces behind internationalization of higher education. As a result, certain aspects of higher education (academic mobility, implementing double degree programs, etc.) contributed to revenue generation (commercialization of education) and its further transformation into a “big business” (Altbach, 2018). Such a business includes a demand for educational services, transborder movement of students, establishment of an international teaching and research job market, curriculum internationalization and growth of private sector in higher education.

In its modern interpretation, global higher education is a homogeneous commodity to be traded without any restrictions, while higher education itself is a private benefit and is not publically accountable (Altbach, 2002). Such an approach helps make higher education profitable and reveals new opportunities on the international level.

### **Research design**

#### *Objective*

This research aims at studying competitiveness management of teacher training universities as part of internationalization of modern higher education.

#### *Methodological approach*

According to the definition of competitiveness used in the present research — namely the ability of an institution to provide affordable quality education more effectively and efficiently than the relevant competitors on the educational services market — the main criteria for competitiveness are the quality and affordability of educational services.

There are different approaches to measuring competitiveness. Depending on the indicator system of choice, the ranking of an educational institution may vary based on the priorities selected. Hans Merckens, a German researcher, analyzes the competitiveness of higher education in Germany based on such indicators as self-sufficiency of an educational institution, flexibility of the educational system as a whole and of an individual university, commitment to producing results (achievements) (Merckens, 2005). The standard indicators for competitiveness are the level of attractiveness, infrastructure of the educational institution and quality of the graduates.

Leading world university rankings (**Times Higher Education (THE) World Universities Rankings, QS World University Rankings, Academic Ranking of World Universities (ARWU)**) mostly use scientometric and bibliometric indicators in their calculation methodology. The Shanghai ranking (ARWU) in particular uses the following indicators: the quality of education is measured based on the number of Nobel Prize and Fields Medal laureates among the graduates, and its percentage in the overall rating of the institution constitutes only 10%. The quality of academic staff is also measured based on the number of Nobel Prize and Fields Medal laureates among them (20%) as well as the number of scientists with high citation rates (20%). The academic productivity is analyzed based on the number of papers published in such journals as Nature and Science (N&S) (20%) and the number of papers indexed in such databases as Science Citation Index-expanded and Social Science Citation Index (PUB) (20%). An average annual number of articles per one member of academic staff is a separate indicator (10%) (Ananin, 2018). The share of indicators clearly demonstrates a drift towards academic (bibliometrical) indicators which makes their importance in

**the general activity of a university quite obvious (Ananin, 2018).**

According to education policy of Russia (The Concept for Exporting Educational Services of the Russian Federation for the period 2011-2020), such indicators include the number of foreign students on full-time study programs; total extrabudgetary funds gained from exporting Russian education; the number of foreign participants in online courses, including the courses conducted in Russian and provided by Russian educational institutions.

The paper uses Michael Porter's (1990) "diamond model" as the methodological basis for investigating competitiveness among teacher training universities. By analyzing successful national economies, Porter (1990) identified four major competitive advantages: factor conditions, domestic demand conditions, related and supporting industries, firm strategy, structure and rivalry. Since this paper examines the efficiency of teacher training institutions from the standpoint of generation of profits, it has been decided to use Porter's (1990) idea for universities. According to this concept, the factor conditions for teacher training institutions are represented by human resources (academic staff and administration); natural resources (geographic location and climate); capital (the amount and types of financing, the market); scientific information potential (schools of thought, educational programs); campus infrastructure. The author of the paper believes that part of the conditions ought to be developed with the help of certain mechanisms while the other part is predetermined.

The domestic demand is important when developing a competitiveness strategy. In this regard, the domestic demand reflects the demand in teacher training inside a country and may serve as an indicator for export markets. Whether this indicator is relevant or not, however, will depend on the level of integration of national educational systems into the global one. Further strategic development requires an existing demand. Since the demands of domestic and export markets may differ, it is essential to use the differences as groundwork of competitiveness strategy.

Related and supporting industries for teacher training are mostly going to include foreign school systems. First, educational programs must be aimed at foreign applicants and the specificities of their educational background. Second, teacher training for foreign students has to be applicable for their national school systems.

The efficiency of educational activity of a university will depend on its structural and strategic flexibility. A university's ability to be structurally flexible is key for successfully competing on the global educational service market. In this case, intraindustry competition may serve as a driving force.

Based on the competitive advantages described earlier, Michael Porter (1990) pointed out four development stages of national economies. These stages may be applied to the stages of competitiveness in teacher training universities. The first stage is the university using its competitive advantages (low tuition fee, close location for foreign students, transportation infrastructure, etc.). The second stage is investment activities of the university, such as financing successful foreign projects, classroom and campus infrastructures and their development, etc. The third stage — the innovation stage — is characterized by the presence of all four competitive advantages and their successful correlation and interaction. The fourth stage is the wealth stage, and is characterized by stagnation. This is the stage where the university achieves the highest possible level of integration having realized all of its potential, and the primary focus is to preserve the achieved status. The development strategies are slightly altered, favoring the ones based on state support in particular.

### *Research framework*

Two Russian teacher training universities were used as the framework for our research, namely Moscow State Pedagogical University (MSPU) and Altai State Pedagogical University (ASPU). The choice was determined by a certain phenomenon that exists in the educational system — the core-periphery model — which clearly stands out in the context of internationalization. In this model, the core university is a university at the cutting edge of knowledge and fundamental research, boasts a developed infrastructure and great academic potential. The “peripheral” university, on the other hand, is further in the back and mostly focused on spreading knowledge, i.e. educational activities (Altbach, 2018).

Studying the competitiveness of this long-standing core-periphery model will reveal the wide spectrum of strategies in the context of internationalization. Today, both “core” and “peripheral” universities are functioning on a new international level.

### **Results**

The analysis of factor conditions of competitiveness in the chosen universities clearly demonstrates the core-periphery opposition in teacher training in Russia. MSPU is a leading teacher training institution with a strong research base and a wide array of successful educational programs. The university employs nearly 2000 academic staff, implements 500 higher education programs, houses 59 schools of thought and 19 dissertation boards and runs 8 branch campuses.

The oldest institution of higher education in Altai Krai, ASPU was created to meet the demand for teachers in the region, and this has remained its primary purpose to this day. The factor conditions for ASPU are a lot more modest: it employs over 300 academic staff, implements nearly 100 educational programs, houses 6 schools of thought and 1 dissertation board. The environmental conditions are quite different as well: MSPU is located in Moscow, in the northwest of Russia, and has a moderate continental climate. ASPU is located in Barnaul, in the south of Western Siberia, and has a severely continental climate with extreme temperature variations. Moscow is the main transportation hub in the country, which is a significant advantage when it comes to internationalization. Altai Krai is a cross-border region, bordering East Kazakhstan Region, and serves as a transit station for freight traffic to Mongolia. The territory of Altai Krai is part of the forming mega-region known as Great Altai, which also includes the nearby territories of Mongolia, Kazakhstan and China.

The differences manifest themselves in the standard of living, and this factor is a perfect illustration for the core-periphery opposition as well. On the one hand, there is a region with the highest income level, service fees and housing prices (the city of Moscow and Moscow Oblast), while on the other hand, there is there is a subsidized agricultural region with the lowest income level in Siberia (Altai Krai). In this regard, however, Altai Krai appears to be more attractive for potential foreign applicants looking for affordable educational services. Dormitory accommodations for foreign students are a key factor here as well. ASPU provides dormitory accommodations for all students who require it with 100% guarantee. MSPU prioritizes foreign students in providing accommodations, although there is no avoiding issues that arise in educational institutions with large numbers of students.

When it comes to domestic demand, in the case of teacher training universities it is a low-impact factor for both MSPU and ASPU. The existing image of the teaching profession and salary provisions contributed to its fall in popularity, which obviously hit teacher training institutions as well. However, the equal opportunity for school leavers provided by the introduction of the Unified State Exam increased the demand for higher education in the regions among metropolitan areas, MSPU included. While developing

a competitiveness strategy it is necessary to focus on the fields of study that are going to be most attractive for foreign students. As a result, in MSPU, the fields of study with increased popularity are Russian as a foreign language, pre-school education, music and visual arts. As for ASPU, apart from Russian as a foreign language, the most popular fields include mathematics and physical education.

By being focused on the system of general education, the teacher training system creates the framework for supporting industries. The focus levels of teacher training on the regional specificities of general education are higher in the regions, which limits the potential graduate market and creates competitiveness on regional level only.

Universities competing for applicants on the domestic market create favorable conditions for cultivating competitiveness. The competition is encouraged by the Ministry of Education and Science of Russia. In this case, applying international standards allows us to analyze this competitiveness as regards the efficiency of teacher training universities in the context of internationalization.

The analysis of internationalization destinations of ASPU and MSPU based on the geographic principle revealed both differences and similarities. Both universities view China, CSI and Europe as prospective destinations. Moscow State Pedagogical University in particular is actively developing various forms of cooperation with Chinese universities while Altai State Pedagogical University has established strategic cooperation with universities in East Kazakhstan and is actively developing cooperative bonds with Turkmenistan, Kyrgyzstan and Uzbekistan. The distinctive destinations are Iberian-American (Spain, Latin America) and Middle Eastern (Syria, Iran) for MSPU as well as American (the USA) and the Great Altai (Mongolia, China, Kazakhstan) destination for ASPU. The destinations are determined by the geographical location of the universities, historically established contacts and educational programs implemented in the universities.

Whether the cooperation is close or not is mostly determined by the forms of cooperation, which in their turn serve as indicators of competitiveness. We have established eight forms in this regard. The most vivid indicator is the implementation of joint educational programs and double degree programs. This indicator is only found in MSPU with its partner universities in Poland, China and Great Britain. Along with those programs, MSPU implements joint thesis supervision and double dissertation defense in cooperation with the University of Erfurt in Germany as well as manages the Moscow School of Arts in Weinan Pedagogical University in China.

Another vivid cooperation indicator is the academic mobility of staff and students. The Erasmus+ program is aimed at providing financial support in the context of exchange education, double degree programs, international academic schools, pre-graduation practical training and research internships. MSPU implements this program with partner universities in Czech Republic, Germany, Spain, Bulgaria and Romania. The University of Franche-Comté in France (Ananin, 2018) and Dresden Technical University in Germany are Erasmus+ partners for ASPU. ASPU also provides short-term internships for Master's degree students from Kazakhstan.

Another form of cooperation manifests in implementing programs of supplementary vocational education, organizing summer schools and competitions for foreign participants and students. The programs of supplementary education in this case are the traditional way for teachers to continue their professional development. The programs are implemented by both universities, catering to the Russian-speaking partners from CSI as a rule. Online courses are currently gaining popularity. Summer schools are a regular form of cooperation and are hosted by the universities under analysis: MSPU hosts Chinese participants while ASPU hosts American participants. Summer schools are not part of the regular academic

year and are financed by grants or the participants themselves. Each summer school develops a unique program aimed at studying the Russian language and culture.

Another significant indicator of internationalization is the number of foreign professors and instructors employed by a university. Moscow State Pedagogical University employs foreign educators on a regular basis; ASPU does so with the help of Embassy of France in Moscow through their foreign language teaching assistantship program.

Internationalization sets up the framework for the efficiency parameters of teacher training universities in Russia. Considering the different levels of factor conditions in different universities, the rate of competitiveness development is going to vary. International activity indicators for Altai State Pedagogical University demonstrate that the university has reached the first stage of developing competitiveness: utilizing its factor conditions — affordable education and accommodation, implementing traditional educational programs, close location for foreign applicants, dormitory accommodation, standard of living in the region, etc.).

Based on the analysis of its international activity, MSPU is currently at the investment stage (as financing successful foreign projects, classroom and campus infrastructures and their development, etc.). According to Michael Porter, the prerequisites for the third stage — the innovation stage — are the appearance of new joint projects with universities overseas (a joint educational institution, double degree programs, double dissertation defence, etc.). We may conclude that competitiveness strategy developed by Moscow State Pedagogical University is efficient in the context of internationalization. The MSPU approach to forming the concept of competitiveness on the global market of educational services may serve as an example for other teacher training universities in Russia with their factor conditions taken into account.

Michael Porter (1990) provided recommendations for each stage to accelerate the switch from one stage to another. Adapted for teacher training universities, the recommendations would be as follows: for the first stage, economic stability should be maintained inside the university, the quality of education should be kept at a high level, an infrastructure should be developed, new markets explored and the best practices of foreign universities utilized. The first stage requires market research to determine competitive advantages and popular fields of study. A comfortable English-speaking environment should be created in order to boost competitiveness.

At the investment stage, Porter (1990) advises to increase financing for infrastructure improvement, research, and cluster development to consolidated academic potential. Internationalization may be boosted by developing educational programs in English for both foreign and local students, implementing academic mobility programs for both students and staff and professional recruiting of foreign applicants. The innovation stage requires further development of research laboratories, training professional staff; creating conditions for developing new strategies and introducing further innovations. This may be done through employing successful foreign academics, attracting foreign citizens for post-graduation studies, international research projects.

### *Discussion points*

Strategic development of competitiveness of universities in the context of internationalization should not be spontaneous but rather occur in stages. While analyzing internationalization strategies of higher education in Germany, Hans Merckens identified three stages. The pre-systematic stage lasted until the beginning of the 1980s and was characterized by an absence of a particular strategy for

internationalization in universities and rudimentary internationalization efforts in certain federal states. Academic contacts between scientists were developing independently, outside the general framework of the university. International departments worked passively. The 1980s saw the first systematic stage, and the European framework of internationalization emerged. Established in 1987, the Erasmus student exchange program dramatically changed the educational climate in universities across Germany and all of Europe. International departments started to perfect their work and services provided for foreign students. The second systematic stage emerged in the 1990s and was characterized by branching out outside Europe and into other parts of the world. The European format of cooperation was formalized through the Bologna Process in 1999 and Lisbon Strategy in 2000, although there is close cooperation with non-European universities (Merkens, 2005). Today it is possible to talk about institutional global integration of universities. Internationalization has become the basis of academic policy and strategic development of universities.

The competitiveness management strategies should take certain factors into the account, such as the university's primary field of study, location, infrastructure and other specificities. Based on the experience of German universities, K. Hahn and U. Teichler, employees of the International Centre for Higher Education Research propose several factors and measures for perfecting internationalization strategies for universities. They include increasing the number of foreign students, the number of students who studied abroad, the number of joint (international) research projects; expanding the list of subjects concerning international matters conducted in English; concluding new partnership agreements (non-Erasmus+ programs included); attracting foreign employees involved in internationalization processes; increased financial support for international programs and events (Hahn, Teichler, 2012). These factors demonstrate quantitative changes. However, intensified informal interaction between workgroups, presidiums, and representatives lays the groundwork for qualitative changes in the context of internationalization. German universities display a trend towards increasing professionalism of the international cooperation sector (an increase in the number of employees) both on university and faculty levels.

A clear development strategy is needed to increase the levels of export of educational services and make teacher training in Russia more attractive. Such a strategy should include a migration policy, informational support at university (faculty) level, scholarship programs for undergraduate and postgraduate students, young researchers, development of educational courses in English.

### **Conclusion**

Based on our research we can assume that while internationalization is already viewed as a landmark of and driving force behind the development of modern higher education, it may also serve as an indicator for competitiveness among Russian universities. Competitiveness management as part of internationalization of teacher training universities conforms to objective laws of phased development and factor conditions. As a result, there is a need to develop a competitive strategy for each individual university while taking into account the specific character of its activity and focus areas of academic research. The existing differentiation of teacher training universities (by the number of academic staff, by financing, by core-periphery model, by status, by field of study, etc.) indicates varying integrational potential where some universities are export-oriented and others have great domestic potential. Commercialization of science and education and profit generation from educational activity calls for a steady domestic demand, support from related and supporting industries, flexible strategy, structure and

intra-industry rivalry.

### References

- Altbach, Ph. G. (2002). Knowledge and education as international commodities: The collapse of the common good. *International Higher Education*, 28, 2-5.
- Altbach, Ph. G. (2018). *Global Perspectives on Higher Education*. Moscow: Izdatelskiy Dom Vyshey shkoloy ekonomiki.
- Ananin, D. P. & Shrainer, N. V. (2018). *Development of academic research in the modern university*. Innovatsionnye tehnologii i podhody v mezhkulturnoy kommunikatsii, lingvistike i lingvodidactike – Innovative technologies and approaches in Intercultural Communication, Linguistics and Lingvodidactics. 301-304.
- Ananin, D. P. & Jacq, J. P. M. (2018). *Experience of ERASMUS+ programme realization as in the case of cooperation with the University of Franche-Comte*. Razvitie obrazovatel'nogo prostranstva regionalnykh vuzov v sisteme koordinat prioritetnykh proektov RF: luchie praktiki – Development of regional universities' educational area in the framework of top-priority projects of the Russian Federation: best practices. 219-222.
- Hahn, K. & Teichler, U. (2012). *Internationalization policies and strategies in the German higher education system*. Funktionswandel der Universitäten. Differenzierung, Relevanzsteigerung, Internationalisierung – Change of universities functions. Differentiation, increasing relevance, internationalization. Frankfurt/New York: Campus Verlag. 459-475.
- Kehm, B. M. & Teichler, U. (2012). Internationalism of higher education institution as new research subject. Funktionswandel der Universitäten. Differenzierung, Relevanzsteigerung, Internationalisierung – Change of universities functions. Differentiation, increasing relevance, internationalization. Frankfurt/New York: Campus Verlag. 445-459.
- Kontseptsiya eksporta obrazovatelnykh uslug Rossiyskoy Federatsii na period 2011-2020 gg. - Concept of educational services export of the Russian Federation for 2011-2020.
- Kuzovenkova, K. O. (2018). Theoretical aspects of higher education internationalization in the modern world. *Samarskiy nauchniy vestnik – Samara scientific bulletin*, 2 (23), 252-256.
- Kreckel, R. & Ananin, D. (2017). Framework conditions for international mobility of academics. Career models of (research) universities in Germany, France, Great Britain, the USA and Russia. *Von der Internationalisierung der Hochschule zur transnationalen Wissenschaft – From internationalization of higher education institution to the transnational science*. Frankfurt/New York: Campus. 135-159.
- Merkens, H. (2005). About competitiveness of higher education system in Germany. *Hochschullandschaft im Wandel (Zeitschrift für Pädagogik) – Change of higher education landscape (Journal for Pedagogics)*, 50, 25-40.
- Porter, M. E. (1990). The competitive advantage of nations. *Harvard Business Review*. Harvard: Free Press. 73-91.
- Trow, M. (2000). From mass higher education to universal access: the American advantage. *Research and Occasional Paper Series*. Berkeley: CSHE. 1-14.
- Trow, M. (2006). Reflections on the transition from elite to mass to universal access: forms and phases of higher education in modern societies since World War II. *International handbook of higher education*. Dordrecht: Springer. 243-280.

Zhdankina, I. & Yu. Shamin E. A. (2014). Matter and term of educational institutions competitiveness. *Vestnik NGIEI – Bulletin of Nizhny Novgorod State University for Engeneering and Economy*, 9 (40), 12-18.