MANAGEMENT

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STRATEGIC MANAGEMENT OF REGIONAL DEVELOPMENT OF DISTRIBUTED UNIVERSITY

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Abstract

The article provides the description of the methods to evaluate the competitive forces that impact the regional market of the higher education services, based on the application of the classical model of M. Porter. The example of several branches provides the analysis of the competitive forces, impacting the respective regional markets of education services. There were formulated the objectives and targets for the development of the branches.

Keywords: competitiveness, competitive forces, model of five forces by M. Porter, education services market, strategy, higher education institution branches, distributed university.

Introduction

The general hypothesis, applied within the research, was the assumption that the application of the M. Porter Five Forces Model in order to evaluate the strategic positions of the regional branches of the distributed university across the respective education markets will allow to develop he strategy for the regional development of the university.

The research object is the strategic management of the higher education institution. The research subject is the strategic management of the regional development of the distributed university.

The objective of the performed research is to develop the strategy of the regional development of the distributed university.

The roll-out of the objective is to identify the necessity in order to resolve the following major tasks:

- clarification on the methods of the M. Porter Five Forces Model with regard to the higher education system;
- approbation of the developed methods to evaluate the strategic positions of the branches of the distributed university across the regional education markets;
- building up the aggregate evaluation of the competitive forces, acting across the regional education services, using the example of a branch of the Plekhanov Russian University of Economics.

The level of development across the subjects of the Russian Federation depends on the overall aggregated level across all enterprises and organizations, acting within the territory of the respective country's regions, as they have an impact, to a certain degree, on the capabilities to tackle the social, ecological, political issues within the individual regions and the subjects of the Russian Federation as a whole.

The establishment and operations of the branches of the leading country's universities within the same region may have a positive impact on the region's development, as it will improve the availability of the high-quality higher education programs, offered by the high-profile universities, on the lines that are highly demanded by the local population. At the same time, it will allow the potential university applicants to cut the costs, associated with moving to a different region, as well as promoting the retention of the professional employees in the region.

The performance of the branches are directly dependent on the conditions within the regions of their location, namely - the competition level across the education services market within the region, the level and dynamics of the development across individual industries, the number of education institutions of various education levels, demographics factors, etc.

The global development strategy for the higher education institutions, which include the regional branches, covers the translations of the branches into the distributed innovative scientific and education complex, driven by the inter-university innovative partnerships, comprising the scientific and research organizations, venture capital companies, technology parks and businesses within the region. The universities' management has the following top priority: attain competitiveness and performance results, for the head university office, as well as the regional structures, as well as enabling the cooperation links within the alliance of the structural business units, located across various country's regions.

The overall methods to evaluate the competitiveness and performance of the branches network of the distributed university are reviewed in the article of this author "Distributed University Evaluation Model" [1]. (Selyansk. These methodology was further developed in this article in order to review the issues relating to the competitiveness of the regional strategy for the development of the branches of the distributed university.

The competitiveness of the branch is directly impacted by the competitiveness of the region – the integrated characteristics of the region, reflecting the attractiveness of the the respective territory to the state, municipal structures and business community (with the objective of the implementation of the federal, regional and municipal programs and entrepreneurship within the respective territory) and for the local population (who wish to reside in this territory) as compared to other territories [2].

The asymmetry in the regions' development may result in the asymmetry in the development of the branch network, since the regions continue to demonstrate the sustainable trends of increasingly higher immigration and urbanization of the employable population; an increase in the number of unpromising settlements; unequal distribution of material and non-material production complex and unequal distribution of the investments across the region's municipal structures [2].

Consequently, before evaluating the branch's performance and developing the development strategy, there is a need to perform the competition analysis of the regional education market and identify the optimal position of the branches within the regional marker, which will enable the maximum protection from the competition impact.

In order to do that, there is a need to apply the M. Porter Five Competitive Forces Model, enabling to analyze the strategic prospects in the organization's development (Fig. 1) [3, 4].

The five competitive forces include the following:

- The threat of new entrants. Barriers for entry into the education services market.

- Bargaining power of buyers – Consumers' power at the education services market.

- Bargaining power of suppliers – Suppliers' power at the market of general education services and professional education organizations.
- The availability of substitute products.
- The competitive rivalry of firms in the industry – Competition at the regional education services market.

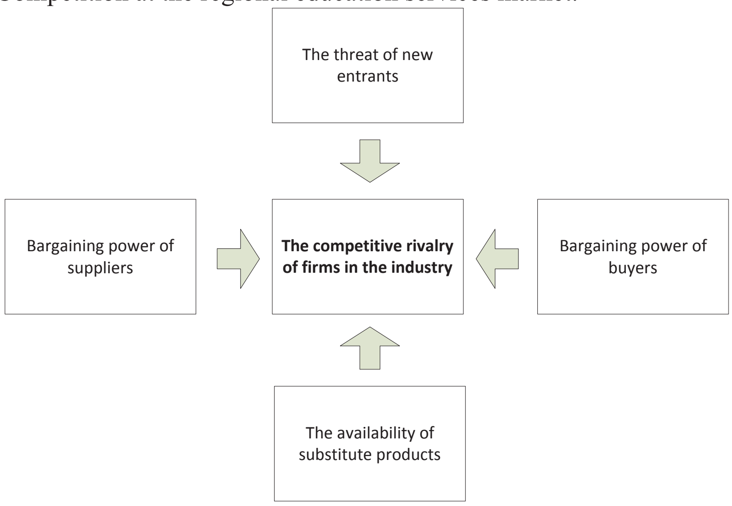

Fig. 1. Porter Model for Evaluation of Competitive Forces, Present at the Regional Education Services Market

Based on the standard approach to the Porter Model [5], the author proposed the clarifications on the classic model in order to enable its application to evaluate the competition at the regional education services market. The comments and recommendations on the evaluation of each of the five competitive forces are provided below.

The analysis is performed in the three stages. Several evaluation parameters are proposed in order to evaluate each competitive force (F1-F5). Each parameter shall be evaluated based on the 3-score scale. The scores for each indicator are summed up in order to arrive at the final evaluation scoring of the competitive force. The qualimetric scale is specified for each force in order to enable the interpretation of the evaluation results.

Stage 1: The Evaluation of the Competitiveness of the Main and Additional Educational Branch Programs and the Competition Level at the Regional Education Services Market.

F1. The availability of substitute products

We identify the substitution services as the education services, provided by other organizations (not higher education institutions) and in a different form (for instance, distance learning), which feature the same quality level and lower prices.

Force F1 shall be evaluated at 1 score, if there can been seen a low level of the substitution threat, 2 scores – medium level of the substitution threat, 3 scores – high substitution threat.

The substitution services may include the education programs, rolled out in the distance learning format, for instance, webinars, offered by the training and consulting companies.

Another important substitution service is today the free Massive Open Online Courses (MOOCs), offered by the universities via the e-systems, such as Coursera, edX, Udacity.

Today, Coursera Platform hosts 389 courses, which have been used by over 4 million people [6].

Sebastian Tran, Former Professor with Stanford University and Former Google Manager, Co-Founder of Udacity, expects that the education services market will grow ten-fold. Doug Becker, Director of Laureate – Non-Profit Universities Operators, believes that many existing universities will soon offer the credits for the completed MOOC in order to enable the students to obtain a degree, which will result in a drastic decrease of the higher education services [7].

In 2012, Pearson VUE announced the capability to pass the exams after finishing the Udacity courses in over 4,000 examination centers in over 170 countries [8].

In UK, the Open University has implemented FutureLearn Campaign, enabling the free access to the education courses, developed across the best country's universities [9].

The range of the substitution services comprises workshops and trainings, offered by education and consulting centers and training companies, as well as education programs, transmitted by radio and TV, self-study materials and versatile print, video/audio and e-format (computer-based) training programs and study materials.

F2. The competitive rivalry of firms in the industry - Competition intensity at the regional education services market

The regional education services market is divided between the state and non-state higher education institutions within the respective region, as well as the branches of other higher education institutions (HEI), located in the region. The education industry has been growing since 1995, sustained by opening of non-state HEIs, while the regional growth has also been supported by the establishment of the branches of state and non-state education organizations. However, today there are evident the processes of strengthening of state requirements to the quality of higher education and a decrease in the number of HEIs, primarily, driven by closing and reorganization of the regional branches.

The following may be considered as competitors:

- state and non-state HEIs and their branches;
- corporate universities of larger companies;
- consulting agencies, training companies, education and education and consulting centers;
- producers of print, video/audio and e-format (computer-assisted) training programs and study materials;
- education programs, offered by TV and radio channels.

The competition level at the regional education services market can be evaluated based on the following parameters:

- the number of HEIs and the branches, active at the regional education services market;
- the growth rates of the regional education market;
- constraints with regard to the prices escalation.

When evaluating the competition level at the regional education services market, there is a need to take into account the following factors: the higher the number of players at the market, the higher the competition level and risk of losing the share market; the higher the regional education services market growth rates, the more attractive it becomes to the competitors; the fewer number of capabilities to escalate prices, the higher the risk of losing the profits/ decreasing the profits, coupled with a continuous increase in the costs.

In essence, it's not only the HEIs that engage in competition, but also individual education programs, offered by those HEIs, which makes it necessary to evaluate the competitiveness of the overall HEI competitiveness, as well as the competitiveness of each individual education program. This is particularly important with regard to the development of the regional development strategy for the HEI branches.

F2 Force shall be evaluated at 3 scores, if there can be seen a low competition level at the regional market, 4-6 scores – medium competition level at the regional market, 7-9 scores – high competition level at the regional market.

F3. The threat of new entrants. Barriers for entry into the education services market

The decision on starting up a new education program within a branch shall be made not only evaluating its potential profitability rate, but also the possibility of competitive actions on the part of the competing HEIs within the region. The regional education markets pose a high level of barriers for the entry of the branches, as they are strongly dominated by the brands of regional state HEIs, systemically supported by the advertising campaigns (education exhibitions, open days). The branches may have chances to taking a strong position at the regional education market, if it's able to offer the education programs that are significantly better and comprise principally new components, as compared to the programs, already rolled out at the market.

Consequently, in order for the branch to enter the market and become a strong player in it, the branch should develop a unique proposition, which would enable it to identify and occupy a free niche. The branch's proposition can feature a single characteristic or several of them: new features of an education service, use of innovative education technologies, application of new standards or lower prices.

The following factors are traditionally viewed as the key barriers for the market entry, as the parameters used to assess the threat of the entry of new players at the market:

- economies of scale, obtained in providing an education service;
- strong brands of the HEIs with a high knowledge level and built-up loyalty;
- differentiation between education service / programs;
- investments and costs levels for the entry into the education services market;
- policies, driven by the state and local authorities;
- readiness of the HEIs and their branches, acting at the regional education service market, to decrease the prices.

The evaluation of the barriers for the entry into the regional education services market, the following features of each barrier shall be taken into account. For instance, if the HEIs / branches can decrease the prices in order to retain the market share, this can pose a significant barrier for the entry of the new players. The higher versatility of the education programs and services at the regional market makes it increasingly more difficult for the new players to enter the market and occupy a free niche. The higher growth rates of the regional market make the market increasingly more attractive for the entry of the new players.

F3 Force shall be assessed at 6 scores, if there can be see a low threat level of the entry of new players; 7-12 scores – medium threat level of the entry of new players; 13-18 scores – high threat level of the entry of new players..

Stage 2: Consumers Loss Threat Evaluation.

F4. Bargaining power of buyers – Consumers' power at the education services market.

The education services users include, firstly, potential students (the first and second stages of higher education) and attendants of further education programs, secondly, potential employers.

The prospective students and attendants purchase the read-to-use education service – the education program and the capability to develop the respective competencies. The employers are seeking to retain the employees, who meet the companies' demand in highly qualified employees.

The competition between the HEIs for the best students drives the development of the physical infrastructure – improvements in hardware in classrooms, dorms improvements, establishment of sports facilities. The student are often asked to take part in the polls in order to identify the satisfaction level with various aspects of the students' life.

Thus, the education services consumers sustain the education services market, seeking to satisfy their needs in the education services and specialist, who have the competencies that are required by the employers, correspondingly. Furthermore, the consumers have a strong impact on the competitiveness of the education services that are offered by the HEI by setting higher quality standards for the education service and the results, derived from it, versus the capabilities that a HEI might have at a particular moment.

In addition, besides the direct consumers of the education services – students and employers – any HEI will have a large number of stakeholders (interested parties). These include the state (state authorities and public opinion), parents and relatives of students, professional communities, business community and alumna.

The mechanism to set prices for education services most often applies the principle of calculating the costs, while also accounting for the competitors' actions and identifying the purchasing power of prospective students/attendants. The individuals education programs may demonstrate a certain increase in prices, based on the evaluation of the HEI status and/or line of education.

In the article by Barber, Donnely and Rizvi, the authors specify that "often the price is treated as a quality indicator... following the introduction in UK of the new education tariffs, many universities set the maximum amount of 9 thousand pounds not because this figure was based on the costs calculation, but because they were afraid that any decrease in the prices from the maximum level will be viewed as an evidence of the low quality of the education services and they will lose their market share or damage their reputation, or both of those will happen. Thus, the continuous growth in the prices on the higher education is sustained not only by the growth in the actual costs for the education services, but also the market logics" [10].

The market power of the education services consumers is assessed, using the following parameters:

- the shares of consumers (corporate employers) with the high consumption volumes;
- propensity of the consumers (prospective students/attendants) to switching to the substituted;
- sensitivity of the consumers (prospective students/attendants) to the prices on the education services;
- satisfaction level of the consumers within the education services, offered at the market.

F4 Force shall be evaluated at 4 sores, if there is a low level of the threat of losing the consumers; 5-8 scores – medium level of the threat of losing the consumers; 9-12 scores – high level of the threat of losing the consumers.

The evaluation of the market power of the education services users requires the inclusion of the following characteristic: if the consumers (corporate employers) are concentrated and they employ a high number of graduates, the HEI has to focus on the needs of the respective employers.

The lower uniqueness of the education programs that an HEI offers means a higher probability of that the prospective students/attendants will choose another HEI.

The higher sensitivity to the prices results in the higher probability that the prospective students/attendants will choose the education programs of competing HEIs, offering those at lower prices.

The dissatisfaction with the quality of education services will result in the hidden demand, which may be met by the new player at the market or a competing HEI.

Stage 3: Evaluation of the Threat from Suppliers

F5. Bargaining power of suppliers – Suppliers' power at the market of general education services / professional education organizations

The major suppliers at the education services market include the education institution of the preceding education level, as the absolute majority of prospective students, entering the Bachelor's degree courses, are the graduates from the general education institutions or professional education institutions. It should be noted that the number of prospective students shall be limited by the demographics conditions in the country overall and the individual region in particular.

The HEI/branch switching to other suppliers may be possible for the programs of the second higher education level, as well as for the further education programs. The organization, acting as users of education services, enrolling their employers in the education programs (corporate customers), may be viewed as the additional type o suppliers.

There may be singled out another type of suppliers, active on the reviewed market – suppliers of resources, used to provide the education services. In order to create the education services, there is a need to retain professors, buy, rent or manage (or obtain for the non-gratuitous use) the buildings (premises), purchase the required equipment and prepare the needed capacities – class rooms, laboratories, library, computer classes, etc.

With regards to the resources suppliers, there is a need to expect the growth in the costs and a decrease in the profits in the event of the prices growth for the resources and a respective increase in the costs for their purchase, driven by the selling prices on the goods and services, used to arrange the education process.

In order to assess the market power of the suppliers, we should take into account the three following quality characteristics parameters:

- the number of general education or professional education organization, having the same specialization as the branch has, active in the region;

- limited scope of the alumna of the general education or professional education organizations;

- costs to switch to other suppliers.

For instance, the lower number of general or professional education organizations, having the same specialization as the branch has, as well as the lower overall number of graduates from those organizations will result in the higher probability in the increasing competition for the prospective students.

F5 Force shall be evaluated at 3 score, if there is a low level of suppliers power; 4-6 scores – medium level of suppliers power; 7-9 scores – high level of suppliers power.

The approbation of the proposed methodology has been performed the expert methodology – there were polled the nine experts, active in the Plekhanov Russian University of Economics and the branches, located across various regions of the Russian Federation and the CIS. Based on the results of the experts poll, there was developed the model evaluation of the parameters for each competitive force across the nine branches (Table 1). Conventional designation in the table: MED - medium influence, H - high influence, L - low influence.

Table 1. Final Evaluation of Competitive Forces Impact

Expert Code	Competitive Force Order Number									
	Scoring					Scoring Interpretation				
	F1	F2	F3	F4	F5	F1	F2	F3	F4	F5
1	2	7	14	10	5	MED	HIGH	HIGH	HIGH	MED
2	2	5	12	8	6	MED	MED	MED	MED	MED
3	2	7	11	7	4	MED	HIGH	MED	MED	MED
4	1	8	10	7	7	LOW	HIGH	MED	MED	HIGH
5	2	8	10	8	4	MED	HIGH	MED	MED	MED
6	2	5	14	10	4	MED	MED	HIGH	HIGH	MED
7	2	5	14	8	5	MED	MED	HIGH	MED	MED
8	2	9	10	8	5	MED	HIGH	MED	MED	MED
9	2	7	10	8	7	MED	HIGH	MED	MED	HIGH

Based on the experts assessments, it may be stated that the "competition level at the regional market" (F2) is the most important competitive force, having the highest impact at the education services market.

Such forces, as "consumers market power" (F4) and "suppliers market power" (F5) also have a significant impact. The education services market enables to view these forces simultaneously, as the value of their impact is directly correlated with the demographics situation, present in the individual region, as well as the level of the economic development, which is determinant for the needs in the employees with higher professional education.

The example for Branch No.3 provides the aggregate assessment of the competitive forces at the regional education services market (Table 2).

Table 2. Example of Aggregate Evaluation of Competitive Forces at Regional Education Services Market

Competitive Force		Description
Expert Code	Value	
F1	Medium level of the threat from substitutes	HEIs and branches of similar specialization offer the similar education services at the market. The education programs, having the state accreditation, are based on the respective state education standard. The programs are differentiated in the so-called regional and HEI components. There is an increasing threat from the MOOCs.
F2	High competition level at the regional market	The education services market is highly competitive, while the HEIs compete between themselves, as well as similar non-state institutions. At the regional market, the competition is engaged not only by the local HEIs, but also branches of HEIs from other regions. For the second-tier higher education programs and further education programs, the competitors shall be deemed to include the consulting companies, study and training centers. There are limitations as to the prices escalation.
F3	Medium level of threat of new players entering the market.	There is a low risk of the new players entering the market. The state plays a significant role at the education market, limiting the entry of the new players by the licensing and state accreditation procedures. There is a high level of the control over the activities of the education organization on the part of the RF Education and Science Ministry – there shall be performed the annual monitoring of the HEIs and branches performance. The ineffectiveness HEIs shall be merged or their activities discontinued. The insufficient understanding by the local governing bodies of the significance of the education and social functions of the branch in the region.
F4	Lower than the medium threat level of losing the consumers	The overall volume of the provided education services is equally distrusted among all consumers. The branches see the target audience, which scope is limited in some ways, in particular, due to the lower numbers of the state-funded places, provided for the prospective students at the branches. The share of the education serviced, provided based on the direct order by the corporate employer is low. The education programs have differentiating characteristics, which are important for the users. The prospective students, willing to study on th conditions of the education costs reimbursement or the attendants of the further education programs, will choose another HEI/branch only in the event of the significant differences in prices. The students and attendants are usually unsatisfied with secondary characteristics of the obtained education services.
F5	Low level of suppliers power	The relative stability in the activities of the suppliers – general education/ professional education organizations, implementing the preceding education level programs. The demographics decrease bottom has been passed, however there are still issues regarding the demographics development. In addition, the number of prospective students shall include the graduated of the earlier years.

Conclusion

Based on the results of the performance analysis, the branch is offered to set forth the following development lines:

1. Entry of the branch into the education/production region's cluster. The cluster shall include the major industry enterprises, professional education organization and future employers – individual larger industry players.

2. The establishment, together with the branch, of the multi-profile, multi-level education complex, using the vertical and

education cooperation links with the external organizations (schools, local government bodies, local businesses).

3. The focus on meeting the demand in "short-term" specialized programs, "customized" courses, funded by the municipal bodies and enterprises in the region.

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