Segmentation of Supplementary Post-Graduate Education (Case for a Russian University)

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Abstract
The process of supplementary education has great influence on the quality of life of modern people. Only continuous perfection of his professional skills will enable a person always to be in demand on the labor market. Modern universities offer a wide range of programs and courses for supplementary post-graduate education. High competition in this field makes the universities identify the most promising directions for training specialists that are required not only in their country but also on international markets. The Marketing department of People’s Friendship University (Moscow) in May 2016 conducted a survey to identify the most attractive segments for promoting supplementary post-graduate education. The paper presents a method of the market segmentation and the results of the study. The target of this work is the segmentation (the principle of choosing) of the continuing education market to ascertain the most economically prospective regions and lines of work in the sphere of training and further professional development. The methods of market segmentation are widely known by marketing specialists. They are described in the works of P.Kotler, J.J.Lamben, M.Porter and other known academics in the field of marketing. The author of modern continuing education’s concept is E. Faure. Principles of this concept are taken into account. Nevertheless for specific market segmentation there are specific factors that can be discovered with the method of field market research. The combination of a priori method based on desk research and a posteriori segmentation using mass surveying (questionnaire polls) allows to develop an algorithm for identifying an ideal segment for specific higher education institute.

Keywords: Continuing education; Supplementary post-graduate education; Market segmentation criteria; Marketing research.

JEL classification: M390 Marketing and Advertising, I210 Analysis of Education

1. Introduction
The need for educational services is closely connected with the situation on the labor market. We can see an increase in the requirements for knowledge and ability of the work candidates. The labor market situation makes many specialists constantly increase their qualification, add to it or even completely change it. Competitiveness and demand for a person in the constantly changing social-economical conditions lead to a need to systematically increase their level of education. Thus the processes of so-called continuing education and extensional professional education got developed.

These tendencies are used by educational facilities which offer, along with the traditional professions, various programs and courses for further training and retraining. With the emergence of new technological possibilities in the sphere of distribution and provision of educational services, the organization of such assortment of education programs became available to many educational institutions. For example, in Moscow region there are hundreds
accounted organizations which offer services for learning a foreign language. This means it is possible to organize any educational programs in practically any place. This encourages the competitiveness of the educational services market, which constrains the prices (thus reducing the profitability while increasing the costs) and forces the educational facilities to carefully choose their “own” markets of educational services and their “own” consumers. On the basis of marketing researches and assessments the strongest high schools/higher education institutes form a demand for their services, in other words, they act as a typical commercial organization, investing significant funds into their promotion.

In May-June 2016, marketing department of Peoples’ Friendship University of Russia (PFUR) conducted a marketing research. The main aim of this research is to defined opinions (desires and possibilities) among the foreign people concerning their attitude towards the idea of receiving post-graduate education. Three surveys were conducted in this research. The parameters of surveys are presented in the “Table 1”.

<table>
<thead>
<tr>
<th>Type of survey</th>
<th>Data</th>
<th>Target group</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Survey in Internet</td>
<td>01.04.-28.04.16</td>
<td>Persons with higher education from Asia, Africa and Latin America.</td>
<td>1221 people (random sample). Average age – 25 years.</td>
</tr>
<tr>
<td>(social networks)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Survey at the</td>
<td>03.05.-04.05.16</td>
<td>The Forum of foreign students studying in Russia</td>
<td>249 people from 56 countries. Average age – 23 years.</td>
</tr>
<tr>
<td>Conference</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Survey PFUR</td>
<td>07.05.-20.05.16</td>
<td>A graduates of PFUR (different years of graduation)</td>
<td>296 people. Average age – 49 years.</td>
</tr>
<tr>
<td>graduates</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Types of marketing surveys
Source: developed by the authors.

PhD, A. Zobov - the head of Marketing department, managing by the research process. He developed the total concept of research and defined their details. D. Yampolskaya - associate PhD, analyzed the results. She developed main principles of segmentation and a posterior segmentation’s scheme. O.Vasilyeva - senior lecturer, was the head of student’s group. She managed by the research of Russia’s image recognition in different global regions. All authors participated in creation of PFUR’s marketing strategy for the nearest years.

2. General description of continuing education
The essence of continuing education lies in the fact that the person remains in the process of constant education / retraining and understands its necessity. Education begins with a pre-school facility and finishes with a post-graduate training program or a doctorate. Continuing education can be viewed as a process of creative accomplishment and a new sociocultural trend. People study not just because their employer requires so, but “for their own sake”. In May-June 2016 a survey was conducted among the foreign graduates of Peoples Friendship University of Russia (PFUR) concerning their attitude towards the idea of receiving post-graduate education. The survey covered graduates of various years, mostly accomplished specialists with good working positions. “Figure 1” shows the results of this survey, where it states that nearly 60% of the respondents were eager for continuing studying after receiving their main education.

Most of the people were expected to be educated according to their employers’ requests and guidance, but 50% of the respondents stated that they were ready to be educated (to pay for their education) on their own accord. Only 15% of the responders showed no desire for further education. Others stated that they “weren’t sure”.

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The concept of continuing education was formed in 1972 after Edgar Faure’s “Learning to be” report for UNESCO (Faure, et.al. 1972). His concept was named as a leading one for reforming in education. In his report Faure uses four principles for the continuing education architecture:
- vertical integration (education must take course during the whole life)
- horizontal integration (acceptance of formal and informal education)
- democratization of education (a more broadly spread involvement of the students)
- educating society (restructure of the educational system).

Continuing education is a growth process of educational, general and professional potential of the individual throughout life. Many educational structures - primary and parallel, basic and advanced, state and public, formal and informal - are involved in the support of the process of continuing education. By increasing their educational and professional educational level, one has the opportunity to qualify for a higher income. At the same time, professional growth leads to higher productivity, higher production standards, development of enterprises and industries. In this paradigm, continuing professional education (CPE), which gives an opportunity to enhance their professional competence, receives a special role and importance. CPE occupies a central place in the structure of the current system of continuous education and is an instrument to preserve the competitiveness of professional and career development of the employees.

In the recent years the role of CPE is increasing both in Russia and around the world. This is due to the fact that the dynamism and the cyclical nature of economic development increase the threat of unemployment and the competition on the labor market, as well as in-house competition. Heads of organizations and companies are interested in advanced training and professional retraining of their employees, as it ensures a competitive organization. CPE is not just one of the most powerful mechanisms of supplying the human resources market with candidates of relevant expertise: anyone can cover their need for self-improvement to adapt to rapidly changing conditions of life.

<table>
<thead>
<tr>
<th>Types of continuing education</th>
<th>The contingent of students</th>
<th>Training time</th>
<th>A document on education (state standard)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional retraining</td>
<td>Specialists with a higher education, graduates and post-graduates</td>
<td>From 750 hours of total labor input</td>
<td>Diploma of professional retraining</td>
</tr>
</tbody>
</table>
Professional retraining (obtaining an additional qualification)

<table>
<thead>
<tr>
<th>Training</th>
<th>Specialists with a basic or higher education</th>
<th>From 16 to 250 hours</th>
<th>Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traineeship</td>
<td>Isn’t allocated as an independent form, it may be part of CPE program, as well as a separate discipline and practice. An additional professional program can be fully fulfilled in the form of traineeship/probation or be just a part of it.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Types of CPE and their characteristics in the Russian Federation
Source: developed by the author based on the Federal Law № 273 "On Education in the Russian Federation."

Before the crisis in Russia over 1,000 subdivisions of additional professional education are qualifying more than 400,000 professionals yearly through the professional training and retraining programs (Malakhov, 2010). The current CPE system in the Russian Federation is transforming with due regard of market mechanisms, is organizationally rebuilding itself to meet the needs of the regional labor markets. In accordance with the Federal Law № 273 "On Education in the Russian Federation", the system of additional vocational training is being implemented in the “Table 2”.

3. The basic principles of the CPE market segmentation
The CPE market development at the moment is also affected by the processes of globalization. Educational services market is no exception. Large modern universities as well as commercial companies of other economic sectors are actively working with international markets. Postgraduate education centers are being created and are successfully operating, which, based on modern technologies (distance education, franchising, online courses, etc.), are promoting their services around the world. This is true not only in terms of direct, educational impact, but also in terms of the spread of social and cultural values of a particular country. Education becomes part of the dissemination of ideas, views and principles. For Russian universities international activity is a relatively new thing, and a well-known problem of marketing - market segmentation of potential and actual consumers of educational services – becomes an important element in creating the CPE system.
It is widely known that the market segmentation process is presented as the following sequence: selection of the criteria for segmentation, market evaluation of these criteria and forming of the target group of consumers. For the market of educational services such criteria are:
- Accessibility (image-wise) of the region;
- Economical characteristics of the region;
- Characteristics of the target audience (potential consumers of CPE).
It is advisable to start the segmentation of the educational services market with an assessment of the image of the higher education institute and the country in which it is located. This qualitative characteristic is very important, as it is the key reference point in the selection of an academic institution. It is common that the potential consumer uses no other criteria for evaluation / selection of educational institutions. The Image is a comprehensive index, which is composed of many factors. For example, the image of the university affects its position in the international rankings, the views of the employers, opinions of the graduates, the news in the press and on the Internet etc. But the potential customer can’t always assess and compare all of these specific factors. He forms a certain opinion, which we propose to consider as the first criterion of the segmentation. If the image of the institution or country where the institution
is located isn’t acceptable for the consumer, the former assessment of the segment is not necessary as long as the situation does not change. If the Image meets the expectations of the potential consumer, we proceed to the assessment of the economic situation in the region. The first step is to assess which sectors are the "engine" of the economy, which production and service industries are most developed. This will enable to make the segmentation "from above", i.e. to identify the sectors of sustainable development, which are present in each country. In this aspect, there is also the need to assess the level of unemployment and to determine the most popular professions/specializations. The idea of what professions are the most prestigious is formed. This creates a complete list of specializations for education organization in the given country or region.

The next step in the process of segmentation is to assess the potential demand or allocation of potential consumers according to the three criteria: higher (university) or specialized secondary (college) education, their motivation to obtain CPE and the paying capacity of this audience. The result is a quantitative assessment of the demand:

a) how many potential customers are present in this country;
b) what percentage of the total target group is motivated for further study;
c) which tuition fees are acceptable for the target audience

Thus, having conducted an assessment on the proposed criteria above, the institution can form the conclusion on the feasibility of entering this market with their offer of educational programs and courses. Segmentation algorithm is shown in "Figure 2".

4. Identifying attractive regions for the development of CPE programs for a Russian university

4.1. Image accessibility of the region

In the modern conditions of sanctions of various kinds, for many Russian enterprises and organizations operating on foreign markets, reputation, image factors come to the forefront. From this perspective, it is advisable to start the segmentation with an assessment of the general mood of the people of the given region towards Russia and Russian education in particular. Opinion of the ordinary people is of utmost interest, rather than that of the official sources, as the two often do not coincide. To determine this position, the academic department of Marketing of PFUR conducted a survey on the social networks with people from Africa, Asia and Latin America. Note that the European region was not asserted, as the level of competition in the field of education is very high, and, taking into account the anti-Russian sanctions, the situation is not conducive for the entry into that market. The target group of this survey consisted of young people with higher or incomplete higher education.

To determine the general attitude of the potential consumers towards Russia, a well-established association method has been applied. The respondents who were willing to respond to a questionnaire on education, were asked to write down their associations with Russia. Below are the results of this poll.
Figure 2. The principle steps of global market segmentation

Source: developed by the author on the base of survey
The African region. In general, respondents from this region were rather friendly towards Russia, they noted the versatility, strength, political power on the international scene and special culture. Importantly, one of the named advantages of Russia, according to the respondents, was quality education. It was stated that Russia is an interesting and great country. With this in mind, its image is directly connected to its political leader. Most noted that Russia is a friendly, multi-ethnic country with many different cultures, therefore, they are willing and not afraid of studying in it. Answers came from the following countries: Morocco, Mozambique, Uganda, South Africa, Ethiopia. A total of 204 respondents.

“Figure 3” shows a collage of the most frequently named associations. President V. Putin is a symbol of Russia. If you look at other associations, they are either neutral or positive. As of clearly negative associations, only government corruption can be attributed. In any case, people with education know of Russia and perceive it positively.

The African region on the whole is attractive for promotion of educational services of CPE of People’s Friendship University in terms of the image. Russia is perceived as a friendly country with a strong leader and an acceptable level of education. The desire to study in it is of interest. The Asian region. The survey involved over 700 people from different countries in this region. These include Vietnam, China, India and Sri Lanka, Indonesia, Mongolia, Jordan. Opinions in relation to Russia in this region were not as uniform as in the previous case. Residents of Vietnam and China were most willing to answer the questions.

“Figure 4” shows the associations of the Vietnamese people. Here we yet again see the leading position of the Russian leader and Russian stereotypical attributes - bears, winter and even borscht and shchi (traditional soups).
In the assessments of the respondents from China our common communist past could be traced. Apart from Putin, Lenin and Stalin have been mentioned. In addition, there were many neutral associations - snow (winter, cold), vast fields and beautiful women (a significant number of young men have been among the respondents).

Similar associations were given by the respondents from other countries: Vladimir Putin, Kremlin, power and authority. Some said that Russia is simply a "good country". Sochi was remembered. There were also answers from which we can judge that the respondents did not have any associations with Russia and weren’t at all interested in the country. Russia has an image of a large, cold, but friendly country, led by the strong President V. Putin. The country does not arise negative emotions, with the exception of Indonesia, where most reviews were of neutral and negative character.

From the image point of view the Asian region can also be seen as attractive one for development of educational services.

*The Latin American region.* The survey involved over 270 people from different countries in the region. These include Brazil, Colombia, Argentina, Mexico, Ecuador, Peru, Chile and Venezuela. Association with Russian respondents in the region was similar to the previous regions, although there were some differences. “Figure 5” shows the typical associations of the Latin American region residents.

The most common associations were made with the geographical location of Russia - the cold, the winter, the snow. The respondents expressed the opinion that Russia is a country with much potential, large and "unknown". Also, respondents mentioned the special culture and beautiful girls (!). As in previous cases, in all the countries President Putin's name was mentioned. There were also communist symbols, indicating a stable association with the past of our country. There was a significant number of responses of "do not know" in countries such as Chile, Mexico, Ecuador, Peru. In general, the region is increasingly focused on the United States (Mexico) and on the Spanish-language Europe (Argentina, Brazil).
Figure 5. Typical associations with Russia by respondents from the Latin American region
Source: survey conducted by the Marketing academic department of PFUR, May 2016

Summing up the first stage of the process of segmentation, it can be concluded that, according to the survey respondents, selected randomly, and the "snow ball" method, Russia's image in the countries of Africa, Asia and Latin America is not negative. Explicitly negative, rough estimates have not been received here. To rank the regions, the first place is the African region, followed by Asia, with Latin America closing the rating, where Russia, according to this study, is viewed as not a very attractive country, and often an unfamiliar one.

4.2. Characteristics of the economic situation of the countries
In the second phase of the segmentation only those countries were examined that have most actively responded to the questionnaire posted in social networks, and which suggested positive associations. Assessment of the economical situation of the region for promotional goals of education services was conducted on three main positions:
- An overall assessment of the GDP and its structure;
- Description of the rate of unemployment;
- The most prestigious professions / specializations

1) The estimation of the economical potential was made on the basis of statistical data of the «Trading Economics» American agency, and included the following basic indicators: GDP & annual growth rate, GDP per capita, unemployment rate. Those countries of the regions were selected for the assessment which had the largest number of responses:
   - The African region: Egypt, Algeria, Tunisia, Tanzania, South Africa, Uganda, Mozambique and Morocco.
   - The Asian region: Vietnam, China, India, Mongolia, Jordan.
   - The Latin American region: Colombia, Argentina, Ecuador, Peru and Venezuela.
These economic conditions of the selected countries are shown in “Table 3”.
Table 3. The main economic characteristics of the countries whose citizens participated in the survey
Source: compilation made by authors from Trading Economics statistic portal (http://www.tradingeconomics.com/)

From the economic point of view, among the countries whose inhabitants took part in the survey, the most promising countries in the African region are South Africa, Algeria, Egypt and Tunisia. In these countries there is a higher GDP per capita and a significant unemployment rate, i.e., people will seek to change their status, including doing so through education. In the Asian region, all of the chosen countries may be selected to promote the services. These countries show a fairly high GDP per capita and a balanced structure of GDP that allows finding demand for many specialties. Argentina, Venezuela and Colombia can be chosen from the Latin American region. These countries show a fairly high rate of GDP per capita and have not as strong a focus on the US, compared to other countries.

2) The evaluation of the most profitable areas of activity in the selected countries was made according to the «Salary Explorer» Internet portal, which shows the most popular and highly paid professions in different countries of the world. Emphasis was placed on the scope of activities, and not on the positions. This information will determine whether there are priority areas of training in a particular country, as it is logical to assume that people are eager to work in well-paid sectors of the economy. The data are shown in “Table 4”.

In terms of capacity of a university (its competences and areas of training) which chooses from a variety of segments to promote their educational services, the most attractive areas are engineering and humanities (Russian language courses).

<table>
<thead>
<tr>
<th>Country</th>
<th>Sphere of trade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>African region</strong></td>
<td></td>
</tr>
<tr>
<td>Egypt</td>
<td>Commerce (retail and wholesale), banking, telecommunications, IT, education and tourism.</td>
</tr>
<tr>
<td>South Africa</td>
<td>IT, medicine and health, finance, law, marketing, mining (natural resources).</td>
</tr>
<tr>
<td>Algeria</td>
<td>Commercial business (retail and wholesale), IT, engineering and construction, finance and insurance, marketing.</td>
</tr>
<tr>
<td>Tunisia</td>
<td>Engineering, IT, telecommunications, marketing (commerce).</td>
</tr>
</tbody>
</table>
Asian region
Vietnam  IT, education, engineering (construction), tourism and commerce.
China  IT, commerce, marketing (advertising), finance, engineering.
India  IT, medicine, commerce, financial sector.
Mongolia  Education, engineering, economics and law.
Jordan  Commerce, telecommunications, marketing, engineering.

Latin American region
Argentina  Engineering (oil and gas), IT, public services (legal, insurance), commerce.
Colombia  Financial services, engineering (oil and gas), commerce, IT and telecommunications.
Venezuela  Engineering (oil and gas lines), IT and finance.

Table 4. The most prestigious professions in selected countries

According to the above selection and some political and religious aspects (which are not specifically discussed in this article), and basing on the university competences, we focused on the following countries: South Africa, Vietnam, China, India, Mongolia, Jordan, Argentina, Colombia, Venezuela.

4.3. Characteristics of the target group
In the third step of the process of segmentation for the promotion of educational services it is necessary to evaluate the characteristics of the target audience: level of education, motivation to learn and paying capacity. Since we are talking about university CPE programs, the target audience will be those studying at universities or those who already have a higher education (bachelor, specialist). Statistical data on the number of school graduates enrolled in universities are presented in the report of the international organization UNDP (United Nations Development Programme). Data for the countries selected in the previous steps are shown in “Table 5”.

<table>
<thead>
<tr>
<th>Country</th>
<th>The number of high school graduates enrolled in higher education in 2015, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>20</td>
</tr>
<tr>
<td>Vietnam</td>
<td>24.6</td>
</tr>
<tr>
<td>India</td>
<td>24.8</td>
</tr>
<tr>
<td>China</td>
<td>26.7</td>
</tr>
<tr>
<td>Jordan</td>
<td>46.6</td>
</tr>
<tr>
<td>Colombia</td>
<td>48.3</td>
</tr>
<tr>
<td>Mongolia</td>
<td>62.3</td>
</tr>
<tr>
<td>Venezuela</td>
<td>77.9</td>
</tr>
<tr>
<td>Argentina</td>
<td>80.3</td>
</tr>
</tbody>
</table>

Table 5. Data on the number of pupils, continuing their education at universities

A small percentage of individuals who continued their education at universities is only present in South Africa and Vietnam. Despite the fact that in India and China this percentage is small, it is compensated by the large number of the population in these countries. All other countries have a significant percentage of enrollment.

With the help of the Internet survey of residents from those countries with higher or incomplete higher education we received answers to the questions about their desire to improve their skills and pricing characteristics of this training. In the same survey the questions about the desire to learn the Russian language and to take up the program about Russia — Russian Studies, were included. The following results were obtained.
5. Conclusions
To define the most attractive segment researches compared parameters of the target groups from different regions as those have been received by us in the above research.

1). Attitude to Russia, Russian language and the program “Russian Studies” looks like the following:
   - In Asian region - rather high interest has been revealed in studying both the Russian language and the training program «Russian Studies»: 60 - 70% in all the countries of the region, excluding Indonesia. Attitude to Russia is also positive.
   - In African region - there is also high interest in studying the Russian language and in taking up RS program - about 60%. Attitude to Russia is positive.
   - In Latin American region - the interest in studying the Russian language and RS program is low. Many answered "Hard to tell". Knowledge of the Russian language does not provide any advantage. Russia's image appears very mixed; the survey collected a lot of "I do not know" answers.

2). Economic condition:
   - The population in the Asian region is ready to pay for continuing education up to an average of $4000 per year. Many are willing to pay for their education personally.
   - Potential demand in the African countries is not such advantageous. Due to their poverty many governments seek to maintain free higher and supplementary education. On average, personally, people are willing to pay no more than $2000 per year, which is a very small value.
   - From the commercial point of view the possibility of payment for educational services is comparably low in Latin America. The average amount through the countries studied was in the range of $2000 - 3000 per year. Many people can get education for free. Most popular professions in many countries are IT, engineering (construction and mining), commerce and medicine.

3). Characteristics of target groups:
   - Motivation to life-long education and number of the high school graduates enrolled in higher education. In all region 60 to 70% of respondents are interested in raising their level of education.
   - From the quantitative point of view are attractive the following countries: China, India, Mongolia and Argentina

4). Development strategy of the Russian university:
   - The Russian university adopted the Asian region as a priority. In terms of directions of CPE training the clear preferences are not revealed. It speaks in favor of the need to prepare comprehensive programs, demand for which is approximately in equal proportions: medicine, engineering, and less in the agricultural area.
   - Only corporate programs or courses on a public institutions level (eg. oil and gas companies, major medical associations) are deemed promising. It is advisable to seek companies that operate in Africa. The special interest in engineering programs has been expressed. The Russian university has a good chance to become one of the most prestigious foreign universities in Africa, if low-cost educational programs for all basic directions of classical university are developed.
   - The most promising way to penetrate to the market of educational services in Latin America is through cooperation with the leading universities, in particular in the direction of Russian Studies.

Common current problem: a very low knowledge level was revealed in the programs related to Russia (RS). This suggests that either these programs are not presented properly in the
universities or they have a very low advertising. Also, it can be concluded that common people have very little information about the Russian education.

References

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