BREAKTHROUGH POSITIONING STRATEGY
FOR RUSSIAN ENTERPRISES OF THE PHARMACEUTICAL CLUSTER

Maslova Elena
St. Petersburg State University, 7/9 Universitetskaya nab., St. Petersburg, 199034 Russia

Pashkus Natalia
The Herzen State Pedagogical University of Russia, 48 Fontanka nab., St.-Petersburg, 191186 Russia

Starobinskaya Nadegda
The Herzen State Pedagogical University of Russia, 48 Fontanka nab., St.-Petersburg, 191186 Russia

Abstract
The article deals with the development of regional pharmaceutical clusters. We study the development of the Russian pharmaceutical market. It has been highlighted areas where there are promising pharmaceutical companies engaged in innovative activities and using modern marketing strategies, including breakthrough positioning strategy.

The aim is to develop a tool positioning regional pharmaceutical cluster region-specific manufacturers and features segments of the pharmaceutical market, including: formulations, dietary supplements and biotechnology (cell and gene) products.

Objectives of the work associated with the identification of the structure of the pharmaceutical market, the definition of its specificity, identifying the specific application and development of breakthrough strategies with them through regional pharmaceutical clusters.

In this paper we use the matrix method and the method of a breakthrough positioning innovative products analyzed regional pharmaceutical cluster the directions of the strategy and development of a cluster of St. Petersburg.

The results of the work related to the definition of the structure and features of the pharmaceutical market segments. Obtained promising areas of pharmaceutical cluster of St. Petersburg.

The paper concludes that in the present conditions, the pharmaceutical specialization of individual Russian regions will enhance their innovation capacity and growth of the Russian economy, and the use of a breakthrough positioning strategy will form an effective pharmaceutical specialization of regions.

Keywords: pharmaceutical market, innovative product, design technology matrix, SET gap.

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Introduction
The specificity of the Russian economy lies in the fact that a significant part of the country's regions are multifunctional. At the same time, stimulation of certain areas of the economy can contribute to economic growth. One such promising areas is the pharmaceutical.

Indeed, today in Russia, medicines are quite expensive for the population, since a significant proportion of drugs are produced by foreign producers. Thus, the development of a pharmaceutical cluster in Russia would be expedient both from the point of view of providing a possible impetus for improving the quality of life of the country's people and for the country's economic security. (Melnikov and Plotnikov, 2014; Lyakin and Rogov, 2017) This cluster of economy requires constant research and testing, which positively affects the quality of medical
care, the development of the regional labor market and the training of personnel in the fields of chemistry, biology, pharmacology, medicine and biotechnology. (Makarova, Petrov and Averina, 2012)

The number of countries that chose pharmaceuticals and biotechnologies, as one of the important areas of specialization, demonstrate significant innovative economic growth. The strongest pharmaceutical specialization in the world is typical for Switzerland; this cluster is rather well developed in USA, Great Britain, Japan, Liechtenstein, EU countries (France, Germany, Denmark, Sweden, Netherlands). Significant pharmaceutical specialization is inherent in the economies of India, China and Thailand for which the drug cluster has provided an innovative recovery and strengthened their position in the world market. (Lin, et al., 2009)

In this regard, Russia should not hope for a rapid access to the forefront of the world's drugs and pharmaceutical market, but it is not only possible but necessary to create a strong drug cluster in certain regions of the country that have all the conditions for it. (Petrov and Tatarkin, 2014) It should be noted that, such clusters will not only increase the country's competitiveness, but also play a significant role in the strategy of import substitution. (Kirillovskaya, Pashkus and Volkova, 2016; Vertakova and Plotnikov, 2013) The emergence of its strong pharmaceutical cluster will reduce the level of social tension in the country, due to the lack of availability of drugs and the constant increase in prices for them.

Objectives: specific segments in the structure of the Russian pharmaceutical market

At present, the pharmaceutical market includes several significant specific segments. This is due to the fact that, on the one hand, new generation products appear based on other types of biotechnologies that did not exist before, on the other hand, views on the goals of consumption of pharmaceutical products and the choice of their consumer audience are changing. Because of these changes, new segments of products appear on the pharmaceutical market, based on the use of cellular and gene technologies, which constitute a cluster of biotechnological products. However, its share in the total volume of the pharmaceutical market is still very low. The largest segments of the pharmaceutical market are divided between the market of dosage forms and the market of biologically active additives (BAA). And the share of the second not only in Russia, but also in the world is constantly growing. This is because the market of dosage forms around the world is quite rigidly regulated, which significantly increases the cost of bringing pharmaceuticals to the industrial sample and the introduction of new drugs on the market, and significantly increases the time of release of new drugs. As a result, stringent requirements for the production and certification of pharmacological products and a very long cycle of bringing these products to the market force manufacturers to turn to the production of much less expensive BAA.

At the same time, it is necessary to emphasize that it is precisely the certain simplicity of certification of the BAA market that contributes to the growth of its significant shadow component. A significant number of unreliable companies are trying to offer the population useless or even overtly harmful drugs at extremely inflated prices. And this leads to a general decrease in the level of public confidence in BAA.

Despite its rigid regulation, there is a similar trend in the market of medicines. Often, the same drugs produced under different brands can be sold at significantly different prices. Sometimes this is justified by the uniqueness of the technology used by the manufacturer, the higher purity of the preparation, the stronger or softer action that does not cause negative reactions of the organism, and sometimes it can not be justified by anything. Due to the lack of awareness of the consumer, pharmacological companies and, even more often, wholesale and retail sellers, pharmacy chains, freely overstate the prices of standard products. Trust in medicines is higher, but in this market, there is a higher share of counterfeit medicines of well-
known brands, which negatively affects the loyalty of consumers to them.

Initially, BAA were not planned to be released as an alternative to medicines. The difference between BAA and dosage forms is that they should include only natural components, and these drugs were originally intended rather not for the treatment of diseases, but for their prevention. Thus, BAA is a product of vegetable or mineral origin, often a supplement to food and enriching it necessary to maintain and promote health substances. “The main difference between BAA and drugs is that the BAA are designed for use in fundamentally different than medicinal products, for the prevention and maintenance of the functional activity of human organs and systems. They can not completely replace food and are not intended for the treatment of diseases” (Tarusin, 2010, р. 218-219). But due to the specifics of consumer perception and the desire of producers to facilitate the process of bringing a new drug to the market, these products have a misconception. Because of the existing consumer beliefs, there are wrong expectations from the action of these drugs, which ultimately acts as one of the main reasons for the suspicious attitude towards BAA. Indeed, in Russia, only 10-15 percent of residents regularly consume additives, in other countries, for example, in Japan, up to 80 percent. (Lyakin et al., 2015) Expecting the curative effect of a preventive agent or counting on the rapid effect of using a prolonged-action herbal preparation, consumers lose confidence in them. It should be noted that it is these reasons, even more often than fears about the quality of drugs, that underlie the negative attitude towards the products of the BAA market.

The segment of biotechnological products, currently standing on the cutting edge of scientific research, is only just beginning to move forward in the familiar markets. This segment has two major directions of development, which are based on cellular and gene technologies. The first direction is based on technologies of cellular transplantation and tissue engineering: the living cell of a person or animal is genetically modified, resulting in acquires new properties, and then is transplanted into diseased tissues and can change the properties of surrounding cells in a directed manner. For this purpose, the so-called stem cells, which are present in small quantities in all multicellular organisms, are taken. (Grigoryan, 2010) This direction allows creating new types of medications that can consider the individual characteristics of the patient and be built based on his individual cellular material. Thus, it becomes possible to create individual medications, regenerate diseased human tissues and even in the long term to grow new organs and tissues to replace damaged ones.

The second direction is the creation of biotechnological products, which is associated with the temporary introduction into the cells of the body of a diseased functional gene that exerts a gene therapy impact on diseased tissues and stimulates them to self-repair. The results of using this group of drugs are much more predictable, and their spectrum of action is wide. With their help, you can treat serious genetic diseases, not only at the embryonic stage, but also in adults. They allow you to repair damaged tissues and organs, stimulating the growth of healthy tissues. At the same time, their widespread use is hampered by the price of drugs and obvious shortcomings in promotion. In these conditions, it is especially important to position the products of the pharmaceutical market and especially biotechnological products and BAA. The Russian market of BAA mainly uses classical advertising, but not the entire complex of integrated marketing communications, which does not allow the active use of the strategic marketing apparatus. (Pashkus et al., 2016)

In general, the pharmaceutical market has many distinctive properties that must be considered by manufacturers when implementing the positioning of pharmaceutical products. In particular, in this market:

- A huge share of pseudo-innovative products is realized at ultra-high costs for bringing innovations to the market (Zasimova, 2008)
- There is a high complexity of quality identification and consumer appraisal of products, including due to its prolonged action and prophylactic properties (especially for BAA
and biotechnological products), which leads to unfavorable selection in the market; (Pashkus et al., 2016; Dengov and Tulyakova, 2015)

- High research costs, bringing to market use and certification of products (especially for drugs and biotechnology products), problems with preclinical evaluation and a clear classification of BAA; (Lesiovskaya and Savateeva-Lubimova, 2011)

- A significant part of the drugs is "doomed" to be niche (which does not allow for high profits due to the use of the "tornado effect"); (Moore, 2010)

- There are serious limitations in advertising (especially about drugs); (Kulagina, 2011)

- The image and the brand have a significant impact on the consumer confidence level, which contributes to the producer's costs of promotion and makes it difficult to bring products to the market; (Keller, 2012)

- There is a predominance of short-lived brands (Short-term brands) on the BAA market. (Pashkus, Pashkus and Chemlyakova, 2017)

All this makes us adjust the methods used by pharmaceutical manufacturers to position their products and the strategic approaches they use. A certain success can bring companies the competent use of breakthrough positioning strategies.

**Methods: Breakthrough positioning strategies in the pharmaceutical market**

Unfortunately, despite the large number of publications in the field of marketing, most of companies in this market use a more or less "standard set" of marketing mix techniques. (Pautova, 2008) We note that their effectiveness is weakened by dishonest advertising (Vahitov and Kurbatina, 2005; Ivashkova and Kozhenkova, 2011), pricing features (Lin, Narkevich and Orlov, 2011) and specificity of state regulation in this market (Zasimova, 2008; Honl, 2012) Therefore, it is necessary not only to use the most advanced marketing technologies, but also to apply strategies aimed at developing a marketing mix (which may be low-budget) (Levinson and Levinson, 2011; Molchanov, 2013) and actively use the brand management complex. (Keller, 2012; Gad, 2001) Thus, it can be assumed that Russian companies underestimate both the strategic opportunities and the opportunities that competent positioning gives. (Glembockaya, 2007; Aaker, 2012)

Therefore, it is desirable to use the concept of breakthrough positioning, launched by Jonathan Cagan and Craig Vogel in the scientific turnover in 2001 and has since been well established in various markets. Cagan and Vogel (Cagan and Vogel, 2013) consider effective positioning on the design technology matrix, which allows you to offer different strategies for the four positions ("generic" products, “kitch” products, hi-tech products, breakthrough products). Consider the situation on the Russian pharmaceutical market.

Indeed, the most of Russian pharmacological companies promote their products in the class, the so-called "generic" products, which represent the largest aggregate of mass products of the pharmaceutical market, which do not possess any pronounced innovative characteristics, nor the developed design features inherent in the product or manufacturers' approach to positioning. That is why the products of Russian pharmaceutical companies, even with similar quality characteristics, are much inferior to foreign ones, which apply a wider variety of marketing approaches.

A small share of Russian pharmacological products is marketed as innovative (hi-tech products), that is, its positioning does not consider the level of product design, the advertising strategy is focused only on the research (technological) component of product development without regard to the style of its promotion. In this category, research pharmaceutical companies and laboratories fall into Russia, which often produce breakthrough goods, but can not provide for its mass production and marketing (or the product itself is too specific, and almost all biotechnological products, including, for example, the preparation of artificial skin (Grigoryan, 2010)). Such companies, as a rule, have close contacts with practicing physicians,
medical centers and leading pharmacologists, researchers, but mainly produce small quantities of products intended for a narrow segment of "advanced" consumers. The output of their products is usually limited by the volumes of raw materials produced and is not directed to the mass pharmaceutical market.

In Russia, there are two regions where a significant proportion of such pharmaceutical companies are concentrated - the Altai Territory, St. Petersburg and the Leningrad Region. In all these regions there is a strong potential of highly skilled labor and developers with high innovative potential, many research organizations and institutes of chemical, biological, medical and pharmacological profile work. Pharmaceutical enterprises, represented in this cluster, use innovative forms of raw materials, often of vegetable origin, in the production of their products. This fact determines the leadership in Russia in the segment of BAA based on plant raw materials, enterprises of the Altai Territory, such as "Evalar" and "AltaiVitaminy." Indeed, in this region a significant share of all medicinal plants used in the production of domestic pharmaceuticals is grown. It is in this region that there is a historically established school of herbal medicine.

At the same time, there is a strong school of herbal medicine and pharmacology in St. Petersburg, and promising institutes and laboratories dealing with the problems of processing and enhancing the useful properties of plant raw materials also contribute to the emergence of innovative pharmaceutical companies in the region. For a long time, large-scale studies and medical developments were conducted in St. Petersburg, although there were no pharmaceutical companies of its own.

A significant share of producers of biotechnological products is concentrated in Moscow and the Moscow region. Thus, the most famous in Russia and one of the world's leading gene therapy drugs, neovasculgen (Deev et al., 2011), designed to treat chronic lower limb ischemia and causing a programmed process of formation and growth of blood vessels, is produced based on the Hematology Research Center in Moscow. This is a typical innovative product of the new generation, currently having a very narrow consumer segment (in the Cagan-Vogel matrix it can be positioned as "hi-tech products"), although, judging by clinical results, it can revolutionize the treatment of chronic ischemia. (Shvalb et al., 2011) This is due to both insufficient drug awareness for the consumer and its relatively high price. With respect to such products, there is usually no widespread promotion to the market, and the role of marketing is seen in the popularization of the drug.

In St. Petersburg, mainly focused research organizations involved in developing and bringing to market the results of biotechnology research. Thus, the pharmaceutical cluster in St. Petersburg and the Leningrad region began to form quite late, compared with other regions, but he immediately focused on the release of high-tech innovation products. (Makarova, Petrov and Averina, 2012; Blagikh, 2016; Rybakov, 2013) The presence of a developed research base and a base for testing and finalizing new drugs allows this cluster to successfully compete in the domestic market.

Regardless of the region, innovative pharmaceutical companies, as a rule, face serious problems at an early stage of their promotion, as they are usually created by enthusiasts who do not always have the necessary skills and knowledge in the field of management and marketing. On the one hand, they have the necessary innovation potential and highly efficient employees, and on the other - these are mostly small companies, with all the inherent shortcomings inherent in small business. As a result, their products are lost in the mass of unknown and often frankly harmful or useless products promoted in a similar way. Consumers do not really trust this kind of advertising, as they have repeatedly faced blatant cheats and false promises.

Similarly, various drugs based on the Siberian hellebore or various "Thai diet pills" were promoted. All of them, in fact, include a certain proportion of narcotic drugs (for example, phentermine and fenfluramine), i.e. the effect of losing weight they really cause, but the
consequences of their intake are completely unpredictable. (Ermakov, 2012, p. 64) As a result of such advertising campaigns, the shares of Russian innovative drugs promoted by such methods have constantly fallen. The production of innovative products on the pharmacological market is very expensive, which contributes to an increase in the share of innovation false. And due to the complexity of identifying the pharmacological innovation false by the consumer, he himself can not determine where the additional margin of the product is justified by its technological component and the quality of the raw materials used, and where it is caused solely by the desire to earn additionally.

The kitsch strategy, introduced in accordance with the positioning map for J. Cagan and G. Vogel, and distinguished by an emphasis on the level of product design and its promotion with a low degree of technology and innovation, is less used in the pharmaceutical market, due to restrictions in advertising. Usually, this strategy is used to promote new products in the market of dietary supplements, which can be safely attributed to the group innovation false. A significant part of these drugs belongs to the group of products for beauty and health, all kinds of dietary supplements to improve the appearance of man and sports nutrition.

These drugs have inflated price indicators and when they are promoted, emphasis is placed on elitism and uniqueness. The "kitsch" strategy is also widely used in the promotion of certain drugs for the treatment and prevention of diseases of the cardiovascular system, joints and spine. In relation to these products, the attention of the consumer to the uniqueness of the drug, its individual focus and the high promising result, allows achieving a significant increase in sales. As a result, there are many short-lived brands that are developed exclusively for wider coverage of the consumer audience and higher margins for typical drugs of their group.

The strategy of breakthrough positioning, combining innovative product characteristics with a certain style of its promotion and design of the product itself, is practically not used on the Russian pharmacological market. One of the first attempts of spontaneous application of this strategy by Russian manufacturers of pharmaceutical products is related to the advancement of the drug arbidol. Certain attempts to apply this kind of marketing strategies are made only by the companies of the Altai pharmaceutical cluster: “Evalar”, “AltaiVitaminy”, and the St. Petersburg pharmaceutical holding RIA “Panda”, including, among others, the innovative NGO “Zvezda”.

Breakthrough products maximize the combination of technology and promotion style, which allows them to use the SET-gap (Cagan and Vogel, 2001, p. 9), based on transformations in society (S-social), economy (E-economic) and technologies (T - technological). Pharmacological products have a pronounced social orientation, as it allows to improve the quality of life of the population of the country. It provides significant economic transformations, since it allows to prolong the period of economically active life of the population, reduces the proportion of disabled citizens for health reasons, and to provide significant economic growth, including innovative type. The production of pharmacological products requires the constant development of biotechnologies and the implementation of large-scale research. To succeed, companies need to develop projects in the framework of corporate social responsibility, that in this sector social responsibility is an integral part of the company's social strategy. (Poteplkin, 2013) Therefore, on the pharmacological market, all the components of the SET-discontinuity are present a priori, which allows the use of a breakthrough positioning strategy.

Results and Discussion

However, the use of the strategy of breakthrough positioning in the pharmaceutical market is quite difficult. For example, one of the problems of positioning the products of Russian pharmacological companies is that they are accustomed to follow foreign pharmaceutical leaders. As a result, they orient their products as substitutes for preparations of the world's leading brands, i.e. automatically refer them to the group of generics that joined the
fashion for a certain class of medicinal forms and BAA. On such drugs in the structure of Russian pharmaceutical production accounts for the vast majority. (Lin, Sokolov and Slepnev, 2013) As a result, the maximum they can count on is the position of a successful product in the fashion market. Thus, leadership a priori gives way to foreign producers, which set the direction of fashion, i.e. form a fashionable current in treatment and prevention.

The application of this promotion strategy is fraught with the fact that with the weakening of consumers' interest in the medicines of the leader forming the fashionable current, interest in Russian generics will also decline.

When implementing marketing technologies for generics, it is important to emphasize their social orientation, which is expressed in maintaining a low price for the product while ensuring its high quality. Such marketing policy will allow to overcome the negative attitude towards the preparations of Russian manufacturers, as to medicines for the poor, whose quality is much inferior to foreign drugs.

All advanced pharmaceutical products of leading Russian manufacturers are mainly promoted in accordance with the strategy of high-tech products. For the most part, these companies manage to reach the level of a piece product or a "niche star". But the limited volume of quality raw materials, unprepared consumer and unsystematic marketing policy of the company, based on integrated marketing communications, do not contribute to the output of these products to mass markets.

Ideally, companies should skillfully combine the positioning of innovative and breakthrough products, which will enable them to cover a broader market and achieve leadership in several of its priority segments. An example of a pharmaceutical cluster formed in St. Petersburg and the Leningrad Region is quite revealing, as here initially pharmaceutical and research companies cooperated to strengthen their competitive positions.

Currently, to close the true SET-gap in the Russian pharmaceutical market, as a rule, there is not enough skills to apply modern marketing technologies. The need to expand marketing activities, especially when promoting related products, such as water purification filters, for example, is recognized by other major Russian pharmaceutical market producers, such as “Evalar” and “AltaiVitamins”. (Poteppkin, 2013; Tarusin, 2010).

The truth must be borne in mind that positioning products as breakthroughs has higher risks of failure, which frightens pharmaceutical companies and to some extent limits their desire to win new positions. On the other hand, the opportunities offered by breakthrough positioning not only expand the potential market for the company, but also create global pharmaceutical brands and create an image of Russia as an innovator in the pharmaceutical field.

**Conclusions**

The pharmaceutical market has many specific features that affect its innovative potential and positioning strategies used on it. The market is rather complicated, with significant limitations and high risks, while at the same time, the achievements on it can determine the promising direction of the innovative development of the Russian economy and create prerequisites for Russia's leadership for some major positions. In fact, successful clusters of innovative enterprises have already emerged in this market, which are beginning to apply modern strategies for positioning their products, and can become at the forefront of the innovative growth of the pharmaceutical industry in Russia.

Regional pharmaceutical clusters have their own key competitive advantages, the development of which will allow to form a complete pharmaceutical complex, enabling if not to exclude the import of pharmaceutical products, then to a significant extent reduce its volumes, replacing many items with domestic products of similar or even higher quality. The application of the concept of breakthrough positioning will allow to determine not only the best companies (products), but also to understand which companies need to be developed to enhance
the competitiveness of the region (country). At present, it is necessary to implement an effective system of state regulation and support of innovative activities of Russian pharmaceutical companies, which allows creating conditions for further cooperation of successful pharmaceutical companies in the country.

References
Aaker, D.A. (2012) Strategic Market Management: European Edition, 2 ed. Wiley.
Blagikh, I.A. (2016) “Theoretical and methodological approaches to the substantiation of the economic policy of modern Russia”, Questions of political economy, no 2, 67-75.
Cagan, J. & Vogel, C. M. (2013) Creating Breakthrough Products: Revealing the Secrets that Drive Global Innovation, 2nd ed., Saddle River, NJ: Financial Times PressUpper.
Cagan, J. & Vogel, C.M. (2001) Creating Breakthrough Products. Innovation from Product Planning to Program Approval, Saddle River, NJ: FT Press.
Deev, R.V. et al. (2011) “International experience and trends of gene therapy of ischemic diseases”, Angiology and Vascular Surgery, Vol. 17, no. 2, 145-154.
Dengov, V. & Tulyakova, I. (2015) “Credit Risk Analysis for the Telecommunication Companies of Russia: Problem Statement and Selection of Indicators”, SGEM 2015 International Multidisciplinary Scientific Conference on Social Sciences And Arts, Albena: STEF92 Technology Ltd., 131-138.
Ermakov, M.G. (2012) “Properties potent and poisonous substances (article 234 of the Criminal Code)”, Scientific Bulletin of Omsk Academy of the Russian Interior Ministry, no. 3, 62-66.
Gad, Th. (2001) 4D Branding: Cracking the Corporate Code of the Network Economy, Saint Petersburg: Stockholm school of Economics in Saint-Petersburg Publ.
Glembockaya, G.T. (2007) “Model of strategic analysis of the situation in the pharmaceutical business”. Remedium. Journal of Russian market of medicines and medical equipment, no. 1, 32-34.
Grigoryan, A.S. (2010) “The first successful attempt to create artificial human skin with the use of embryonic stem cells”, Genes and cells, Vol. 5, no. 1, 21-23.
Honl, T.A. (2012) “Regulation of the pharmaceutical market: is there a way for the development of innovative pharmaceuticals in Russia?”, Problems of accounting and finance, no. 4, 73-75.
Ivashkova, N.I. & Kozhenkova, T.M. (2011) Marketing and ethics in the Russian pharmaceutical market. Marketing and marketing research, no. 2, 144-153.
Keller, K.L. (2012) Strategic Brand Management. Building, Measuring, and Managing Brand Equity, 4th ed. Prentice Hall.
Kirillovkaya, A.A., Pashkus, V.Y., Volkova, A.V. (2016) “The Newest Economic Policy, Government Regulation of the Economy and Economic Security”, Globalization and its Socio-Economic Consequences’16, Zilina, Slovakia: University of Zilina, 870-875.
Kulagina, S.V. (2011) “Government regulation of business in the pharmaceutical market”. Russian Entrepreneurship. no. 1-2, 141-146.
Lesiovskaya, E.E. & Savateeva-Lubimova, T.N. (2011) “Criteria for the pre-clinical evaluation of the effectiveness and safety of medicinal plant resources”. Biomedicine, Vol. 1, no. 3, 91-94.
Levinson, J. C. & Levinson, J. (2011) The Best of Guerrilla Marketing: Guerrilla Marketing Remix, Berkley: Entrepreneur Press.
Lin, A.A. et al. (2009) “Trends in the retail sector of the Russian pharmaceutical market in the context of innovative economic development”, Economics and Management, no. 11, 22-26.
Lin, A.A., Narkevich, I.A. & Orlov, A.S. (2011) “International experience with reference pricing as a method of state regulation of prices in the pharmaceutical market”. Pharmacoeconomics. Modern pharmacoeconomics and pharmacoepidemiology, Vol. 4, no. 1, 37-38.

Lin, A.A., Sokolov, B.I. & Slepenv, D.M. (2013) “The pharmaceutical market: the production of medicines in Russia”. Problems of the modern economy, no. 1, 191-195.

Lyakin, A.N. & Rogov M.I. (2017) “The Consequences of Discriminatory Measures for the National Economy in the Global Market”, Globalization and its Socio-Economic Consequences’16. Zilina, Slovakia: University of Zilina, 1380-1387.

Lyakin, A.N. et al. (2015) Economic policy, Moscow: Yurayt.

Makarova, I. V., Petrov, A. P. & Averina, L. M. (2012) Theory and practice of formation of cluster policy in the region. Ekaterinburg: Institute of Economics UrO RAN Publ.

Melnikov, S.V. & Plotnikov, V.A. (2014) “Specifics of pricing in the Russian pharmaceutical market in the context of drug safety”. Russian Economic Revival, no. 2, pp. 127-132.

Molchanov, N.N. (Ed.) (2013) Marketing in the Information Society, Moscow: RG-Press.

Moore G. A. (2010) Inside the Tornado. Development strategy, success and survival on hyper growing markets. St. Petersburg: BestBusinessBooks publ.

Pashkus, N.A. et al. (2016) Strategic Marketing, Moskow: Yurayt.

Pashkus, V., Pashkus, N. & Chemlyakova A. (2017) “The Problem of Quality Correlation and Efficiency of Medical Services as a Factor of Health Organizations Competitiveness”, CBU International Conference Proceedings 2017, Vol. 5, Praha: Central Bohemia University, 366-370.

Pautova, E. (2008) “Advertising drugs and supplements in the Russian pharmaceutical market”. Remedium. Journal of Russian market of medicines and medical equipment, no. 12, 30-32.

Petrov, A.P. & Tatarkin, A.I. (2014) “Influence of medical and pharmaceutical clusters on the regional economy”, Economics and Mathematical Methods, Vol. 50, no. 2, 16-23.

Poteppin, M.S. (2013) “Determination of the effect of perceived social responsibility on consumer confidence”. Problems of the modern economy, no. 2, 178-181.

Rybakov, F.F. (2013) “Industry in St. Petersburg: structural changes and new trends”, Innovations, no. 8, 79-82.

Shvalb, P.G. et al. (2011) “Efficacy and safety of the drug "Neovaskulgen" in the treatment of patients with chronic lower limb ischemia (IIb-III phase of clinical trials”, Cell transplanation and tissue engineering, Vol. VI, no. 3, 76-83.

Tarusin, D.P. (2010) “Status and prospects of development of biologically active food additives (BAA)”, Problems of the modern economy, no. 4, 217-220.

Vahitov, Sh.M. & Kurbatina, O.N. (2005) “The role of social marketing in the pharmaceutical services to the population”. Basic Research, no. 1, 58-59.

Vertakova, Yu. & Plotnikov, V. (2013) “Russian and Foreign Experience of Interaction Between Government and Business”, World Applied Sciences Journal, no. 28 (3), 411-415.

Zasimova, L.S. (2008) “State regulation and incentives for innovation in the Russian pharmaceutical market”, Innovations, no. 11, 79-82.