

The Strategic Analysis of Industry-Specific Competition and Environmental Risks - An Integrated Approach

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ABSTRACT

New trends in the formation of a strategy and the analysis of industry competition are considered in this article. In classifying the concepts and insights of foreign and Russian researchers in the sphere of strategic analysis, the authors relied upon the continuity criterion assuming that new approaches to strategic management complete the known methods. The focus was made on the changes in structural groups of strategies and estimating the impact of the resource potential of a company on its competitive advantages, as well as new sources of innovation and risks. The authors highlight the most important aspects of the development of successful strategies in modern Russia. The use of internal innovative advantages, the formation and support of an actual 'use value' taking into account eco-factors as well as the development of competencies, innovations and partnership in the context of technological ecosystems become the key conditions for Russian companies. The main conclusions that were obtained as a result of discussion in this article can be structured as follows:

1. The world economic situation leads to a decrease in the stability of companies' competitive advantages and reduces their life cycle. The main sources enhancing their stability and viability are the organizational and environmental innovations;
2. The process of creating strategies for oligopolists implies mandatory use of environmental components;
3. Modern environmental conditions create the prerequisites for the expansion of the scenario analysis and technology forecasting and achieving universality of the methods;
4. The combination of the known methods based on the specifics of production and the market, and the increasing spread of the concept of creating value together with customers and the DART system can be noted as the dominant trends in the formation of a strategy.

KEYWORDS

strategic management, external environment, ecosystem, customer value, innovation, strategy, competition, competence, competitive advantage, resource-based approach.

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Introduction

The methodology of the strategic analysis of industry-specific competition has a long history. Its content comes down to a systematic study of the possibilities and potential limitations of the company's activity in the industry market taking into account such parameters as profitability, key success factors, presence of foreign competitors or threats from imports and the situations created by labor relations. Industry competition is a struggle within one industry to gain maximum income. An analysis of industry-specific competition allows us to understand the structure and dynamics of the industry, its typical capabilities and existing threats, to identify key success factors and as a result to develop a marketing strategy of the company.

We can say that the economic sector is a set of companies that compete in the market with homogeneous goods or services. The attractiveness of the sector mostly determines the requirements for the competitiveness of companies and the type of competition. The process of analyzing industry competition includes the following steps: estimation of the situation on the whole; estimation of the level of competition; identification of the driving forces of competition; the conclusion or summary about the attractiveness of the industry. These processes are well known; however, recent tendencies are to transform each process in the economic area, both in the world and in Russia, and even at the legislative level. (For example, reference can be made to the Federal Law No. 172 "On the strategic planning in the Russian Federation", published in June 2014).

These changes have led to a substantial increase in the market value of stock. For example, the shares of PAO Aeroflot have risen in price from 53 rubles/pc to 153 rubles/pc; the rate of PAO Akron has risen 2 times for the six months. Similar changes have occurred with the shares of PAO LUKOIL, PAO FosArgo, PAO Rosneft, PAO MOEK, PAO Uralkali, PAO MTS, Rostec Corporation and others. Considering the activity of many organizations, one can find some constant changes: an integrated approach to estimating the economic and environmental risks; a combined approach in estimating technical and technological problems, and socio-psychological support of planned processes, especially in organizations that are large taxpayers. The result of these trends that we could notice was a super additive effect.

The tools aggregating of strategic and environmental management, social management and social engineering have enriched the process of creating a strategy.

Methods

Let us dwell upon the characteristics of each stage of industry analysis. The overall situation in the industry is based on the estimations such as the

estimation of market holism (Smuts, 1926), the scale and the level of competition (local, regional, national, and global), the rate of the market size growth and the stage of the industry life cycle, the emergence of the industry and the specifics of competition, the pace of technological change and product innovation, the degree of product differentiation.

The estimation of competition in many companies begins with using the model of five competitive factors developed by Professor of Harvard Business School Michael Porter in 1980. Porter and Ansoff argue that there are a limited number of strategies, and when creating a strategy there are a limited number of items for each industry. Strategies are formed on the basis of analytical calculations, positioning and so on. This procedure involves the analysis of existing and potential competitors, suppliers, manufacturers of substitute products and consumers (Porter, 2016).

PAO Aeroflot demonstrates one of the successful examples of Porter's methodology transformation, Figure 1. PAO competition driving forces can be determined by comparing the changes in a long-term rate of growth of the industry, buyers structure, methods of using the product, modifications of the product range, technological transformation, the dynamics of marketing innovations, the number of subsidiaries in the structure, the diffusion of innovations, the cost and effectiveness of the methods of evaluation; the dynamics of consumer preferences; differentiation in the choice of commodity-based capsule, government policy and regulation techniques, reducing uncertainty and risk (Zott, 2003; Teece *et al.*, 2003).

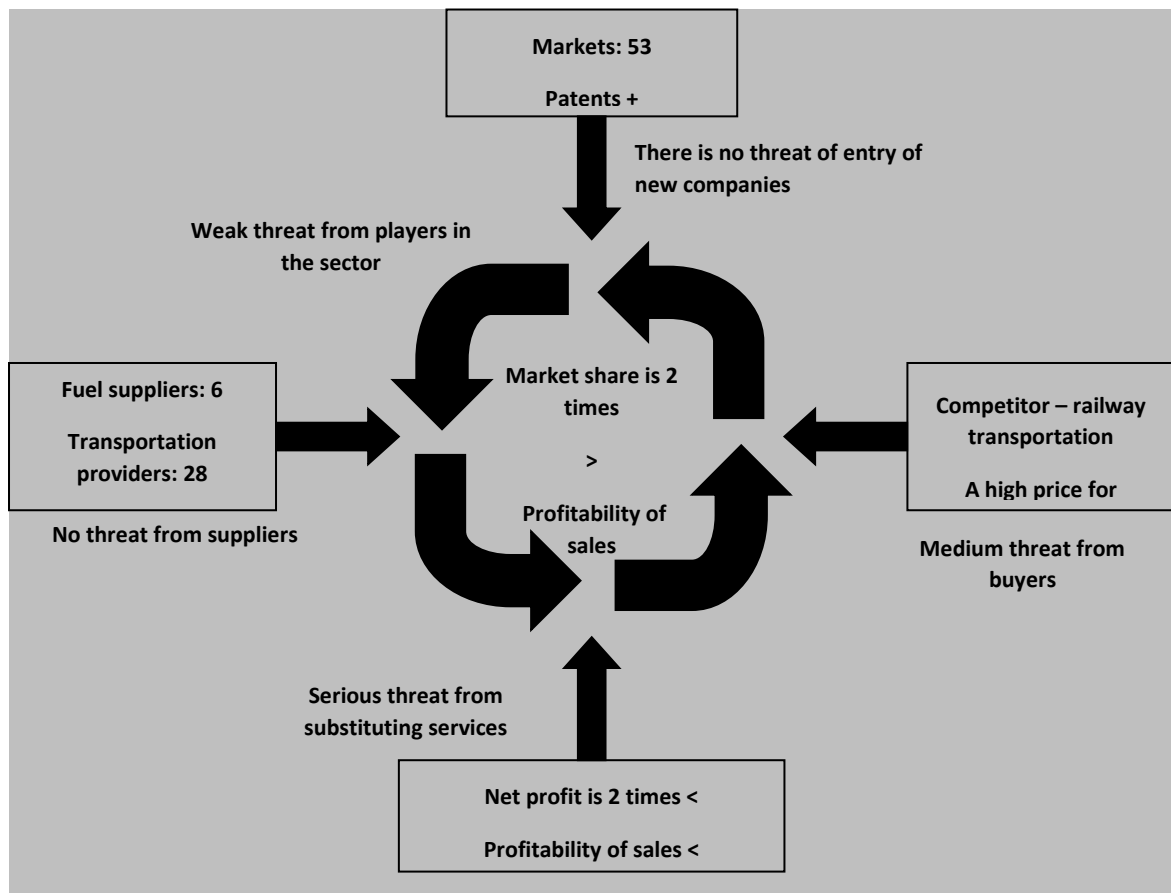


Figure 1 The analysis of PAO Aeroflot on the basis of Porter's five forces competition

If we follow Porter's theory in comparing two types of competitive advantages: low costs and differentiation of products, a steady dominance of "product differentiation" may be noted. PAO Aeroflot operates these competitive advantages quite successfully; they have increased the market price of its shares 3 times. The package of measures includes:

- changes in the quality of service;
- traffic control of routes and the expansion of their transportation geography, the change of flight status;
- outsourcing in SkyTeam alliance;
- expansion of the range of products from premium to tourist ones;
- new aircraft fleet;
- changing in flight modes and routes coordination by improving communication of airport hub;
- aircraft fleet optimization and improving accessibility and comfort of shopping;
- improving the design of the airshow and ensuring the diversity of food capsules;

➤ innovation among low-cost carriers, for example, Pobeda airline company.

The first type of Porter's competitive advantages, as we can see below, is related to environmental safety. This trend is reflected in the program of innovative development of PAO Aeroflot till 2020, according to which they plan for reducing the cost of air travel; energy efficiency and resource conservation; improving the quality of services; increasing productivity; improving environmental performance; increasing the flight and aviation security; improving accuracy and flight reliability.

The same is true for other industrial giants. For example, with the purpose of reducing costs some commodity companies (PAO Lukoil, PAO Surgutneftgas) plan for the development of ecological and economic products on the basis of solar energy; the installation of solar collectors; heat pumps; the creation of photovoltaic systems; innovative technologies and materials in conditioning and heating; implementation of targeted environmental policy. The companies of the chemical industry such as PAO FosArgo, PAO Uralkali in the process of the formation of their strategies also try to combine the usefulness of their products with the environmental demands of consumers although the share performance of the chemical industry companies has a negative correlation compared with the shares of commodity companies.

The goal of the industry analysis is to estimate the attractiveness of the industry and its individual commodity markets. An analysis of industry-specific competition allows us to understand the structure and dynamics of the industry, its typical capabilities and existing threats, to identify key success factors and as a result to develop a marketing strategy of the company. Therefore, strategic analysis models suggest monitoring the organization's strategy for its adequacy to the expected changes in the environment. The main instruments of this phase may be the SWOT-analysis (see Table 1) and VRIO-analysis developed by Barney (Barney, 2007).

Table 1. SWOT-analysis of PAO Aeroflot (made up with reductions according to www.aeroflot.ru)

Strengths	Weaknesses
<ul style="list-style-type: none"> • The largest air carrier in Russia; • Availability of large aircraft fleet; • Common management and service standards; • Availability of administrative resources; • Wide range and quality of services; • Good organization, the existence of internal quality and safety standards. 	<ul style="list-style-type: none"> • Lack of flexibility in pricing policy; • Possible downtimes and flight delays; • Expensive maintenance due to the company's status; • Flights undercharging because of competition; • High costs to upgrade the fleet.

Opportunities	Threats
<ul style="list-style-type: none"> • Optimization of the structure in a set of expenses; • Ecological innovations in the domestic market; • The increase in passenger traffic of the company in the European and world markets; • Brand upgrading to a premium class. 	<ul style="list-style-type: none"> • Fuel and insurance price increase; • Reducing the effective demand; • Increase in rental price and service; • Foreign competition; • Seasonality of demand.

Despite the changes in the estimates of the impact of the external environment on the company's effectiveness, there will always be a need for a strategic analysis of responses to the expected external changes as well as the reconfiguration of the resources portfolio and competitive advantages. Jean-Jacques Lambin notes that the company's competitive advantage will always depend on the so called everlasting factor irrespective of the economic conditions (Lambin, 1996).

- *External competitive advantage* is based on the distinctive goods qualities which form the value to the buyer.

- *The strategy of product differentiation* (know-how in the field of marketing, the superiority of the enterprise to identify and meet customer expectations).

- *Internal competitive advantage* is based on the superiority (leadership) of the company, production and management costs, provides its greater profitability and stability to lower commodity prices.

- *Dominance in costs strategy* (know-how in the production and management).

We can say that today the largest companies in Russia are the followers of the industry scenario analysis based on Shell matrix, Figure 2 (Shell company developed it in 1975, then there were some modifications of the matrix). This situation is not surprising since the matrix of Shell was intended for a vertically integrated business entity and all the companies within this entity are put together in conglomerate (especially capital intensive industries). The great advantage of the matrix is the ability to use both *quantitative and qualitative indicators*. On the axis (OX) of the matrix the strengths of the company are given (competitive position), and on the axis (OY) one can see an industry attractiveness. The advantage, of course, is the ability to calculate their regulatory criteria or comparison when describing the environment, industry competition, market, type or stage of the life cycle, market or industry structure (Lindgren, & Bandhold, 2009). Scenarios can represent a logically consistent development of future versions. The methodology of scenario development is based on the following sequence of actions: identification of scenarios scale; determination of the current set of assumptions; estimation of forecasts reality or situation development; estimation of the probability of each alternative in

each of the scenarios; tracking real changes. Additionally, you can use the method of rating.

Attractiveness of the industry	High	Double in production or phase it down	Step up competitive advantages	Leadership in the given type of business
	Medium	Continue business carefully or phase it down partly	Continue business carefully	Growth
	Low	Phaseout	Phaseout partly	Generation of cash
		Low	Medium	High
		Business strength		

Figure 2 Shell industry matrix

Thus, the insertion of the scenario analysis unit changes the angle of the strategy and allows to take into account the most important predictions and involve the key factors of competition for future marketing position, as well as to provide a basis of security in conformity with the resource potential. The identified parameters of future markets are also the basis of dynamic strategic analysis to estimate the existing resources and capabilities of the company in terms of forming a competitive advantage in these markets. The analysis and evaluation of existing company resources and capabilities based on identified future scenarios are conducted from the perspective of creating a sustainable competitive advantage in future markets. The main tool of this analysis can be the VRIO method that makes it possible to estimate the level and the expected use of alternative resources such as the source of immobilization or credit under the existing external threats and opportunities. The evaluation of resources and capabilities according to these criteria taking into account the identified changes in the environment makes it possible to identify key resources and to identify the strategic consequences of their use.

Industry-specific competition is the process of rivalry between the organizations dealing with the same kinds of businesses. This rivalry is often just an illusion. The type of industry analysis depends on the analyst's purpose but often the main issue is the question of ownership. Industry analysis is one of the most problematic elements of strategic management analysis since it determines mostly the potential opportunities and key elements of the company's development strategy, and this estimation is often prejudiced and does not allow to take an adequate management decision. Currently, the sources of financing for innovation and their expected results are one of the main evaluation categories (Hax, & Wilde, 2001). There are many definitions of strategy; the authors prefer to define it as the outlook on the long-term perspective in the light of such factors as segmentation, positioning and innovation. Today the following definition is relevant for many companies: strategy is an integrated operation model designed to achieve the objectives of the enterprise. However, the main element in the strategy is innovation.

Principal ways for Aeroflot innovation activity:

- Route network expansion;
- Modernization and updating of aircrafts;
- Implementation of comprehensive service systems in core areas of operations (ground support, maintenance and repair, security);
- Service extension for passengers;
- The realization of multipurpose IT projects.

Results

The dynamic nature of strategic analysis makes it necessary to introduce additional estimation unit of the existing dynamic company scenarios. Downes and Mui advance two leading criteria of developing the company's strategy. The first one is that the best way to predict the future means to create it. The second one says that it is impossible to look to the future more than a year and a half so the strategy requires dynamics, real time reference and intuition. Further, these authors say about the conversion of the business landscape, establishing new contacts and changing the relationships within the company (Downes, & Mui, 1998).

In his book "The Future of Competition: Co-Creating Unique Value with Customers" Prahalad together with Ramaswamy (Prahalad, & Ramaswamy, 2006) offer a new *concept of creating value together with customers*, as well as DART system methodological tool (dialogue, *access*, *risk assessment*, transparency), or a kit of collective value creation. At the same time, they note that the changing concept of strategy focused on the finding of new sources of value and opportunities leads to the disappearance of the distinction between "concept" and "implementation" of the formed strategy.

It is obvious that the second and third groups of abilities are important for leading companies, while the first and fourth ones are important for organizations working in the markets with any level of the dynamism of the environment since these structural units are responsible for the link of the company strategy with the environment.

Today, the environmental and economic risks play the crucial role for Russian companies. Economic risks traditionally include an active, adaptive and indirect impact on the commercial, credit, manufacturing, inflation, exchange

and investment ones. Ecological risks are caused by the destructive influence of companies on the environment and measure the level of competitive ability of the industry.

As we already know, the leading Russian companies now find sources of innovation in the creation of environmental policy and changing organizational landscape. Environmental risk management is a system-based component of planning and work organization of the joint stock companies in accordance with the concept of sustainable development. Environmental policy of Russian resource companies focuses primarily on unconditional fulfillment of the requirements of Russian environmental legislation, environmental safety of all parts of the production and reduction of negative impact on the environment. It includes the development, search and implementation of new technologies that minimize or completely eliminate the negative impact of production processes on nature, provide a reduction of resource production, the maximum involvement of waste production and consumption in the production processes. These goals are achieved through the development and implementation of an annual program of environmental measures. Administrative minimal package of environmental corporate programs for many organizations include: the construction of new and redesign or modernization of environmental facilities; timely overhaul; preventing equipment failures and elimination of pollution; protection and restoration of lands; protection of ambient air; rational use of water resources, recycling of industrial waste; the organization of safe waste management, processing and the maximum use of waste products; continuous air monitoring in the territory; research and development; environmental training.

Environmental monitoring is done by organizations, especially the resource ones, in two ways:

1. Quality examination of environmental components (surface and ground water, sediment, soil, air, snow);
2. Environmental monitoring of industry-related objects including the control of the state of emissions and pollutant sources, places for household and industrial waste.

Discussion

The concept has prevailed for a long time about the fact that companies are open systems (Grant, 2005; Ansoff, 2005; Eisenhardt, & Martin, 2000; Downes, & Mui, 1998). Russian companies' strategies were formed in accordance with this paradigm. The imperative of the environment while forming strategy was driven by the high dynamism of the economy, globalization, and the "waves" of restructurings both in Russia and in the US (and mostly in all markets). The last decade has been the dream of stability and self-identification. Then the focus shifted to the resource-based approach (Nanda, 1996; Foss, 2007; Helfat *et al.*, 2007). Focusing on the resource-based approach and using the available company benefits of the internal environment is already traced in the works written in 2000. For example, in the works of Grant, Teece, Sanchez, Barney, Hamel, Prahalad and other researchers (Grant, 2005; Teece, 2009; Barney, 2001; Barney, 2007).

However, many theoretical questions remain unanswered, and the mutations of the main categories of management continue. Methodological and practical aspects of strategic analysis require a significant transformation. Thus, according to (Foss, 2007), it is assumed that the resource-based approach is the unfinished revolutionary path because a considerable potential is saved for its complement. Works of American researchers, of course, are in the lead among the works that have criticized the resource concept of strategic management (Morrow *et al.*, 2007; Nanda, 1996; Priem, & Butler, 2001). It is impossible not to admit the originality of "blue ocean" strategy of INSEAD French school (Kim, & Mauborgne, 2005; Larreche, 2008). Rita McGrath (McGrath, 2013) noted that business has been obsessed with the idea of creating a sustainable competitive advantage too long and now such a desire is not a rule but an exception. The reasons are technological and organizational innovation: flat world, the nascency of countries without borders, reducing market barriers, blurring industry lines. Under these circumstances companies need to "reserve" a lot of short-lived competitive advantages similar to the small expensive products kept in reserve in premium hotels. Paraphrasing a Russian proverb, we can say: there is nothing more stable than the *short-lived and unstable competitive advantages*. This situation turns strategy into something moving and adapting to the consumer.

We can talk about the dominance between Russian companies from the point of view of the development of intercompany strategy, the expansion of the strategic analysis and using the resource approach. We can also note the desire to create local, dynamically changing competitive advantages. At the same time, resources are often understood as intercompany innovation including organizational and social ones.

Nelson and Winter discussed in detail the role of the latter (Nelson, & Winter, 2002). The authors define a "routine" as a result of the process of organizational learning that accumulates an implied knowledge unavailable to competitors making the company's ability to use its resources unique. According to them, "routines" are "economic genes" which are inherited, changed and selected. Economic genes give a sense of national stability in enterprises; and Russian companies traditionally use them as the basis of the highest achievements especially if the "routines" are used in the context of Gestalt psychology (Kohler, 1947; Dudin, et. al. 2014). When forming the respective functional strategies, we should base on the study of the psychological component of the staff problem range. Business restructuring process has given effective support to Russian companies; it has affected the management and financial accounting, personnel incentive system and the scheme of a company's functioning in the whole. Certainly, anti-Russian sanctions played a crucial role in the change of orientation in the strategic management of Russian companies.

Conclusions

Thus, a key aspect of the development of a successful strategy of the company in today's rapidly changing economy becomes creation and constant updating of customer value based on the ability to see the opportunities of the world around, the development of partnership within the technological ecosystem, the ability of the company's top management to the training and competence development in terms of constant commercialization of innovations.

We can recommend as the final block of strategic analysis model to review the strategic gaps in resources and competencies of the organization from the perspective of consumer expectations. One should not just identify the gap between necessary and available resources and abilities, but there is need of rating them.

There are some additions to the classical models of strategic analysis: scenario analysis (similar to that proposed by Shell) with the purpose of the estimation of the macroeconomic situation both in the international and local markets in major and related industries; VRIO or DART analysis conduction; the development of environmental measures and organizational innovations; the latter will never lose their relevance and effectiveness.

Using the proposed supplements makes it possible to effectively meet the challenges facing the oligopolists to ensure the profitability of production and investment; influence the behavior of the most likely future competitors and strengthen the innovation and environmental activity. This will enable companies already in the current period to take steps to gain the resources and abilities, as well as to develop of competencies necessary for future markets.

References

- Ansoff, I. (2005). *Strategicheskoe upravlenie* [Strategic Management]. Moscow: Ekonomika.
- Barney, J.B., & Arian, A.M. (2001). The Resource-Based View: Origins and Implications. In M.A. Hitt, R.E. Freeman, & J.S. Harrison (Eds.), *Handbook of Strategic Management* (pp. 124-188). Oxford: Blackwell.
- Barney, J.B. (2007). *Gaining and Sustaining Competitive Advantage*. Pearson Prentice Hall.
- Downes, L., & Mui, C. (1998). *Unleashing the Killer App. Digital Strategies for Market Dominance*. Boston: Harvard Business School Press.
- Dudin, M.N., Lyasnikov, N.V., Sekerin, V.D. & Gorohova, A.E. (2014) Historical aspects of global transformation of engineering thought in industry and agriculture in the context. *American-Eurasian Journal of Sustainable Agriculture of changing the technological modes*, 8 (6): 17-22.
- Eisenhardt, K.M., & Martin, J.A. (2000). Dynamic Capabilities: What Are They? *Strategic Management Journal*, 21: 1105-1121.
- Foss, N.J. (2007). Scientific Progress in Strategic Management: The Case of the Resource-Based View. *International Journal of Learning and Intellectual Capital (IJLIC)*, 4(1/2).
- Grant, R.M. (2005). *Contemporary Strategy Analysis*. Blackwell Publishing.
- Hax, A.C., & Wilde, D.L. (2001). *The Delta Project: Discovering New Sources of Profitability in a Networked Economy*. New York: Palgrave.
- Helfat, C.E., Finkelstein, S., Mitchel, W., Peteraf, M.A., Singh, H., Teece, D.J., & Winter, S.G. (2007). *Dynamic Capabilities: Understanding Strategic Change in Organizations*. Blackwell Publishing.
- Kohler, W. (1947). *Gestalt Psychology*. New York.
- Kim, W.C., & Mauborgne, R. (2005). *Strategiya golubogo okeana* [Blue Ocean Strategy]. Moscow: HIPPO.
- Lambin, J.-J. (1996). *Strategicheskii marketing. Evropeyskaya perspektiva* [Marketing Strategy: A New European Approach] (Trans. from French). Saint Petersburg: Science.
- Larache, J.-C. (2008). *Effekt impul'sa. Kak vyzhit v "golubom okeane"* [The Momentum Effect: How to Ignite Exceptional Growth]. Moscow: Mann, Ivanov and Ferber.
- McGrath, R. (2013). *Uspekh na chas – novaya norma dlya biznesa* [The Success for an Hour is a New Standard for Business]. *Harvard Business Review – Russia*, November, 56-65.
- Morrow, J.L., Sirmon, D.G., Hitt, M.A., & Holcomb, T.R. (2007). Creating Value in the Face of Declining Performance: Firm Strategies and Organizational Recovery. *Strategic Management Journal*, 8(3): 271-283.
- Nanda, A. (1996). Resources, Capabilities and Competencies. In B. Moingeon, & A. Edmonson (Eds.), *Organizational Learning and Competitive Advantage* (pp. 93-120). Thousand Oaks, CA: Sage.
- Nelson, R.R., & Winter, S. (2002). *Evolutsiya teorii ekonomicheskikh izmeneniy* [An Evolutionary Theory of Economic Change]. Moscow: Delo.
- Porter, M. (2016). *Konkurentnoe preimushchestvo. Kak dostich' vysokogo rezul'tata i obespechit' ego ustoychivost'* [Competitive Advantage. Creating and Sustaining Superior Performance]. Moscow: Alpina Publisher.

- Prahalad, C.K., & Ramaswamy, V. (2006). *Budushchee konkurentsii. Sozdanie unikal'noy tsennosti vmeste s potrebitelyami* [The Future of Competition: Co-Creating Unique Value with Customers]. Moscow: Olimp-Biznes.
- Priem, R.L., & Butler, J.E. (2001). Is the Resource-Based "View" a Useful Perspective for Strategic Management Research? *Academy of Management Review*, 26(1): 22-40.
- Smuts, J.C. (Ed.). (1926). *Holism and Evolution*. London: Macmillan.
- Teece, D.J., Pisano, G., & Shuen, A. (2003). *Dinamicheskie sposobnosti firmy i strategicheskoe upravlenie* [Dynamic Capabilities and Strategic Management]. *Bulletin of St. Petersburg State University. Ser.8: Management*, 4(32).
- Teece, D. (2007). Explicating Dynamic Capabilities: The Nature and Microfoundations of Sustainable Enterprise Performance. *Strategic Management Journal*, 28: 1319-1350.
- Zott, C. (2003). Dynamic Capabilities and the Emergence of Intra-Industry Differential Firm Performance: Insights from a Simulation Study. *Strategic Management Journal*, 24: 97-125.