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Article

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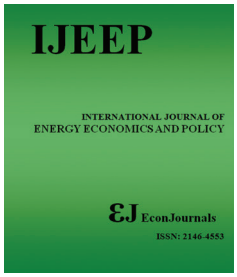

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Evaluation of Gas Industry Competitiveness in the Foreign Market

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ABSTRACT

The evaluation of the Russian oil and gas companies' competitiveness in the foreign market under the tough market conditions is of particular importance as it is crucial to retain company's current position and market share. The article makes qualitative and quantitative evaluation of Russian companies in the global gas market. To analyze the competitiveness of the gas industry company in the foreign market, the authors used a dynamic method of evaluating competitiveness coupled with a SWOT analysis. The dynamic evaluation method offers an opportunity to identify the basic factors that influenced the level of competitiveness of the entity under study and, accordingly, determine the main reserves for increasing its competitiveness. Based on the study conducted, recommendations were made on the increase in competitiveness in the current situation of unstable demand and volatile energy prices. By analyzing the PJSC Gazprom level of competitiveness, as well as its external and internal environment, indicators were identified the regulation of which will lead to the progressive development of the organization and increase in its competitiveness. The practical relevance of the study lies in the possibility to use both the research outcome and the proposed methods in a development strategy for the gas industry company.

Keywords: Advantages, Competitiveness Management, SWOT-analysis, Oil and Gas Companies
JEL Classifications: L10, F23, N70

1. INTRODUCTION

With the rapid humankind development and its exponential growth, the world faced the challenge of finding new sources of energy that could at least partially replace coal and wood. Gas and oil became such sources as they are currently the main sources of energy and important commodities in the export market of many countries of the world.

Natural gas plays an important role in global power consumption, as gas is relatively affordable and environmentally friendly. Most (83.4%) of the world's gas resources are concentrated in twelve countries (Figure 1), while 64.4% of global reserves belong to five of them (BP, 2019).

Gas suppliers export two types of goods: Both liquefied (LNG) and unliquified natural gas. LNG is natural gas artificially liquefied by cooling it to –160°C to facilitate its storing and transporting. If traditional gas is piped, then LNG can be transported by sea vessels, but its further application needs maritime gasification terminals.

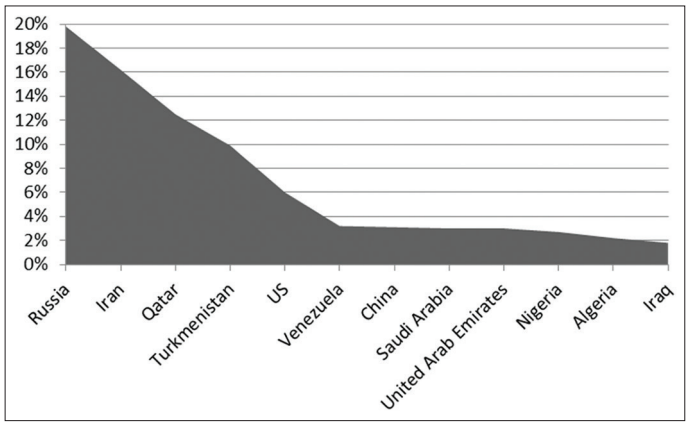
Russia is the largest natural gas supplier in the world market - in 2018, the country exported 247.9 billion cubic meters (Figure 2), which is 26.3% of the global total gas export.

In 2018, the Russian Federation exported 193.8 billion cubic meters to European countries through pipeline and 6.8 billion cubic meters of LNG, which accounts for 80.9% of Russian exports.

According to PJSC Gazprom, in 2018 the share of Russian gas in European consumption reached 36.7%. More than 11% of Russian gas goes to the CIS countries.

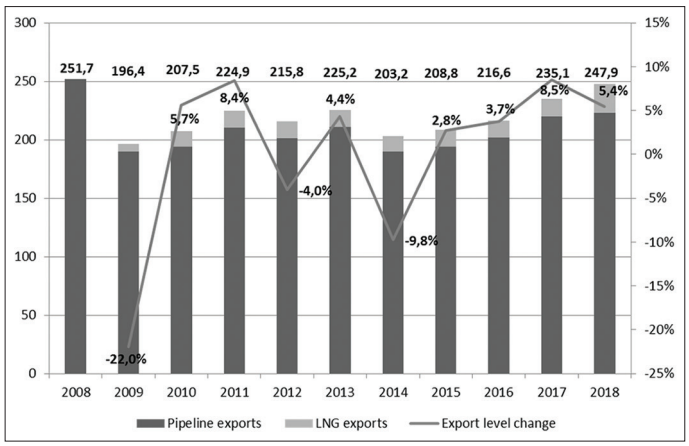
Exports of liquefied natural gas from the Russian Federation accounts for 10% of total exports (24.9 billion cubic meters). A significant increase (over 60%) in 2018 was due to the putting into operation of new facilities - the Yamal LNG plant. The major importers of Russian LNG: Japan (9.4 billion cubic meters), Taiwan (3.2 billion cubic meters), South Korea (2.6 billion cubic meters).

Figure 1: Share of total proves reserves by countries



Source: Compiled by the authors according to the BP, 2019

Figure 2: Export of natural gas of the Russian Federation (2008-2018)



Source: Compiled by the authors according to the BP, 2019

Despite their first place in the export of natural gas and significant volumes of deliveries, Russian companies face many problems in the global gas market. Table 1 depicts the key indicators of Russian vertically integrated companies in the oil and gas industry. PJSC Gazprom is distinguished by its best performance, ranking 43rd in the list of global companies. PJSC Lukoil is also one of the hundred leading oil and gas companies, occupying 98th place. The positions of Surgutneftegas and Tatneft are much weaker - the companies are ranked 335 and 577 respectively.

Data analysis for 2008-2018 showed that the volumes of gas exported by Russia are closely related to emerging economic crises (for example, 2009 and 2014). In the short term, the global oil and gas market is inelastic, that is, a decrease in supply leads to a sharp increase in prices, while producing reserves reports by oil producers, on the contrary, leads to a sharp decrease in prices. A huge problem for the oil and gas market and global economic development is a sharp drop and boom in price quotations (Figure 3). In March 2020, the United States recorded negative oil prices, when some manufacturers had to pay extra for unloading oil depots.

The oil and gas market has always been under the influence of geo-economic and geopolitical confrontation. Especially over the past several years, the market is experiencing constant shocks associated with the sanctions and restrictions, which strongly affect the activities of many large exporting countries, including Russia. Another striking feature of the market is cross-border trade - it is associated with an uneven distribution of resources in the world and specificities of the national economies, since the availability of reserves does not imply their active exploitation.

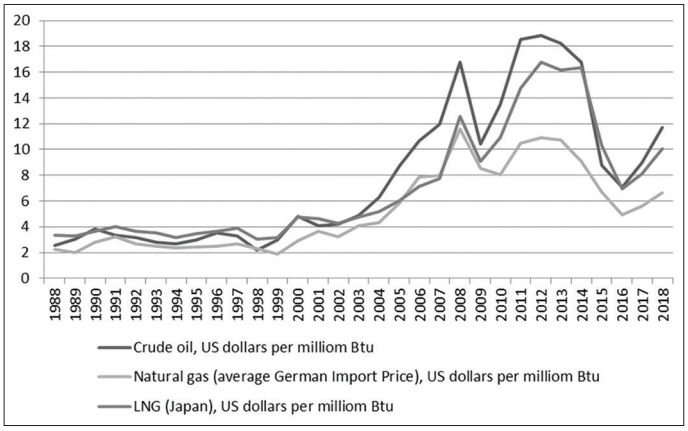
Current trends indicate that in recent years the US has been actively increasing oil exports. According to the analytical report and forecasts of the International Energy Agency (IEA), the market situation may change due to the ever-increasing volumes of oil

Table 1: Key financial indicators of Russian vertically integrated oil companies in comparison with leading foreign companies in the oil and gas industry, 2017 (billion dollars)

Rating position	Company	Country	Revenue	Profit	Assets	Market value
11	Royal Dutch Shell	Netherlands	321.8	15.2	410.7	306.5
13	ExxonMobil	USA	230.1	20.4	348.8	344.1
21	Chevron	USA	139.4	10.2	256.4	248.1
26	Total	France	155.8	8.4	257	168
27	Sinoptec	China	326.6	8	249.9	138.6
30	PetroChina	China	282.4	4.1	381.1	220.2
36	BP	Great Britain	251.9	4.3	275.3	152.6
43	PJSC Gazprom*	Russia	112.2	12.2	316.8	57.8
73	PJSC Rosneft	Russia	94.8	3.9	214.2	69
91	Equinor (ex. Statoil)	Norway	65.1	4.9	115.4	90.2
95	Eni	Italy	75.5	3.9	143.1	70.7
98	Lukoil	Russia	99.9	7.2	92	60.4
335	Surgutneftegas	Russia	19.8	3.3	74.5	17.2
577	Tatneft	Russia	11.9	2.1	19.2	25.6

*Gazprom Neft data not shown. Source: Compiled by the authors according to the Analytical center under the Government of the Russian Federation (2018)

Figure 3: Global prices for oil, natural gas and LNG 1998-2018



Source: Compiled by the authors according to the BP, 2019

supplies from the United States over the next years, which may cause a rapid transformation of global oil markets. It is expected that by 2024 the United States will export more oil than Russia, and will approach Saudi Arabia in terms of export volumes.

The main competitors of the Russian Federation in the LNG market are Qatar, Algeria and Nigeria, which supply in total 47.5 billion cubic meters of liquefied gas to Europe.

According to forecasts, over the next 5 years the United States, together with Iraq, Brazil, Norway, Guyana and other major countries will provide about 70% increase in global oil supplies. That is, oil importers are now becoming exporters, demand growth is slowing, third world countries (such as Indonesia, Trinidad and Tobago) are developing and starting to export energy, and an increase in LNG supplies from the US to Europe is supplanting other market players.

Russian companies mainly specialize in the extraction, export, primary processing of raw materials and their supply abroad and to domestic markets. Foreign companies developing in other areas, such as petrochemicals, have higher rates due to different added value and marginality, and in addition they also become resistant to fluctuations in the market. Under harsh conditions of lowering price indicators and demand in the oil and gas market, it is especially important for Russian companies to search for ways to increase their competitiveness in the foreign market so as not to lose their market share.

2. LITERATURE REVIEW

In 2003, Mark Melitz published a model of international trade with heterogeneous companies. Its ideas were based on assumptions of heterogeneity of companies, horizontal differentiation of goods and imperfect competition. The author emphasized that the most competitive companies have lower costs of entering foreign markets, as a result of which markets witness redistribution in favor of such companies. Melitz presented a hierarchy of companies depending on their participation or non-participation in globalization processes. According to this hierarchy, the most competitive are the companies that directly invest in foreign companies, the less competitive are those that operate in both the foreign and domestic markets, and even less competitive firms operate only in the domestic market (Melitz, 2003).

The need for diversification, including geographical, in the current crisis context is addressed in the article by Kirichenko et al. (2020). The authors argue that in conditions of instability in global oil prices, a quantitative evaluation of the degree of company diversification becomes the basis of strategic planning; while the largest foreign and Russian companies in the oil and gas industry are preparing their development strategies taking into account the diversification of both types of activities and markets. The need for diversification is confirmed by a qualitative analysis of the activities of Russian and foreign energy companies.

The start of the Russian companies' integration in the global oil and gas market is discussed in articles by Liuhto (2002) and Vahtra and Liuhto (2006). The authors analyze the growth of Russian companies' investments in projects in other countries. Liuhto considers the activities of the two largest Russian corporations - Gazprom and Lukoil; Liuhto and Majuri's paper (2014) notes that from 2000 to 2013 the volume of direct investments from Russia grew from $ 20 billion up to 500 billion dollars. Vahtra also writes that the main drivers of the international growth of the Russian economy are natural resources companies.

In many respects, modern events in the oil and gas industry are related to the topic considered by Brunekreeft and Guliyev (2009). The authors describe the problems of European energy policy, which include the security of gas supply and the competitiveness of the gas market. The authors think that the security of gas supplies is at risk due to the high and ever-growing dependence of European imports on a limited number of large foreign suppliers, in particular Sonatrach, Statoil and Gazprom. The article examines the possible contradictions between the goals of ensuring supply security and competition, explores the scenarios of the European countries' response to their dependence on a small number of large foreign suppliers.

The competitiveness of Russian oil and gas companies in the case of Gazprom and Rosneft is analyzed in an article by Olsen (2013). The author focuses on the government's role in the international expansion of Russian oil and gas companies.

Locatelli (2014) и Boussena and Locatelli (2017) in their works note that PJSC Gazprom needs to change its traditional export strategy due to growing competition in the European Union market and the threat of a new market player emergence - imports of liquefied natural gas from the United States. According to the author, the company has to decide whether it should start a price war in order to passively adapt to the impending competition and its role as a "residual supplier" to the EU gas market, or whether it should take advantage of the current price uncertainty. This article explores the possibilities of long-term strategic operations of Gazprom, in addition to its simple participation in a price war. It is argued that Gazprom may become a key player in the EU gas market.

Specific features of the Russian oil and gas companies' operations in the European market are discussed in the book by Vlček and Jirušek (2019). The authors present the behavioral patterns of the Russian gas giant Gazprom in the South-Eastern European region. The paper by Romanova (2016) also analyzes foreign energy policy in terms of geopolitics, the use of legal and technocratic instruments both by state bodies and Gazprom.

The evaluation of the Russian oil and gas companies' competitiveness is getting more topical bearing in mind the problems in the international market:

1. A drop in gas demand in the European market
2. Increased competition between natural gas, coal and renewable energy
3. The transition from national markets to integrated market zones
4. Expanding possibilities of Europe to diversify imports
5. Change in the pricing system in the gas market (Kulagin et al., 2016);

But any changes in the international market can be apprehended not only in terms of negative influence on the positions of Russian oil and gas companies. Problems in traditional markets should open the way to the progress of alternative activities. Thus, the implementation of the strategically important project "The Power of Siberia" opens up a new market for the Asia-Pacific region for Russia. Bradshaw and Waterworth (2020) note that the development of significant natural gas reserves in China is associated with geological and technical problems; the demand growth prospects indicate that China may need to expand its LNG imports or a second pipeline from Russia. The article by Bondarenko et al. (2020) analyzes the development prospects of petrochemical companies. The authors evaluate the competitiveness of petrochemical companies in the Russian Federation and abroad for the current period and until 2030 in accordance with the industry development strategy and draw conclusions about the existing growth potential. The main competitive advantage of Russia in the field of petrochemicals is that it has a rich raw material base, since natural resources are the main component of petrochemical production.

Thus, taking into account present-day challenges in the international oil and gas market, companies need to clearly understand their competitive advantages and be able to evaluate competitiveness in the foreign market in order to turn any problems into future development prospects.

3. METHODOLOGY OF THE RESEARCH

To analyze the competitiveness of PJSC Gazprom within the framework of this study, it is proposed to apply a dynamic method for evaluating the competitiveness of an enterprise in the foreign market, together with the construction of a SWOT analysis matrix.

The companies' case proves that most of the market entities successfully developing in the long term owe much to a competent market evaluation, therefore, as part of this study it is proposed to focus on the full model of SWOT analysis as an example of evaluating the competitiveness of an enterprise.

It is worth remembering that the competitiveness of an enterprise is a relative indicator. Therefore, the basis for comparison should be similar indicators of competitiveness of the key competing enterprises, which will be used in the dynamic method of evaluating competitiveness, and which will make it possible to efficiently evaluate the competitiveness of an enterprise both in dynamics and in statics. Many researchers consider this method the best in terms of the correlation between the reliable results obtained and the labor-intensiveness of their application.

The main aspect of the dynamic method is the calculations for several previous periods (3-4), not just for the reporting one. The obtained during the analysis time series significantly increase the reliability of enterprise competitiveness evaluation. The decomposition of the competitiveness indicator obtained by applying the mathematical model of the dynamic method in the context of objects of comparison in combination with an analysis of their dynamics allows us to draw conclusions regarding the main reason for the current level of competitiveness (low sampling efficiency or high activity efficiency of the analyzed enterprise, etc.). Then such an analysis of the company's competitiveness enables identifying the main factors that influence the competitiveness rate of the organization under study. And this, therefore, allows us to determine the main reserves for increasing the competitiveness of the analyzed enterprise.

The mathematical model of the dynamic method of evaluating the competitiveness of the gas industry company is shown in Table 2.

The competitiveness coefficient has the following criteria: the higher C, the greater the level of competitiveness of the analyzed enterprise will have in relation to the selection of competitors. If $C > 1$, then the competitiveness of the analyzed enterprise will be higher than that of the sample of competitors. If $C = 1$, then the competitiveness of the analyzed company will be equal to the competitiveness of the sample. With $0 < C < 1$, the competitiveness of the analyzed company will be lower than the sample of competitors.

The first step in evaluating competitiveness by applying a dynamic method is to define matching objects. The objects of comparison with PJSC Gazprom will be the main competitors in the foreign market - the largest oil and gas companies, whose sales territory covers the whole world. The following most successful players on the world stage over the past 4 years are included in the sample of competitors based on the monitoring of the companies' international activities in the fuel and energy industry:

1. "ExxonMobil" (USA)
2. "Royal Dutch Shell" (Netherlands-Great Britain)
3. "PetroChina" (China)
4. British Petroleum (Great Britain)
5. Chevron (USA)
6. Total (France).

Thus, the calculation of the competitiveness coefficients for PJSC Gazprom in the foreign market will be carried out in comparison

Table 2: The mathematical model of the dynamic method

Formula	Decoding the formula
C=R (a)/R (s)*	R (a) - the operational efficiency of the organization under study
I (a)/I (s)* L (a)/L (s)	R (s) - the operational efficiency of the sample
	I (a) - the index of change in revenue of the organization under study
	I (s) - revenue change index for a sample of competitors
	L (a) - liquidity of the studied organization
	L (s) - liquidity for a sample of competitors
R (a) = S (a)/E (a)	S (a) - revenue of the studied company for the reporting period (sales)
	E (a) - costs of the studied company for the reporting period (expenses)
R (s)= S (s)/E (s)	S (s) - revenue from a sample of competitors for the reporting period
	E (s) - costs for the selection of competitors for the reporting period
I (a) = S (a)/S (0a)	S (0a) - the revenue of the organization under study for the previous period
I (s) = S (s)/S (0s)	S (0s) - the revenue from a sample of competitors for the previous period
L (a) = CA (a)/CL (a)	CL (a) - current liabilities of the organization (current liabilities)
	CA (a) - current assets of the organization under study (current assets)
L (s) = CA (s)/CL (s)	CL (s) - short-term liabilities of a sample of competitors
	CA (s) - current assets of a sample of competitors

Source: Compiled by the authors according to Voronov, 2014

with the average value of the total indicators for a sample of the above mentioned competing enterprises.

The source of information for calculating competitiveness indicators is the financial statements of companies (revenue, net profit, current assets and short-term liabilities) published on their official websites. All reporting is carried out under international standards (GAAP and IFRS) in United States dollar terms. The financial statements of PJSC Gazprom are also presented under international financial reporting standards (all data for comparison were converted into US dollars at the average Central Bank rate for each reporting year).

It is believed preferable to use annual reporting information to evaluate and analyze the competitiveness of high-tech enterprises, because such data is not subject to seasonal fluctuations that occur when using reports for shorter periods. Thus, a dynamic competitiveness analysis of the PJSC Gazprom in the global market will be carried out on the basis of annual reports for 2015-2018.

4. THE RESULTS OF RESEARCH

The final calculation results are presented in the Table 3.

The analysis of the calculations (Table 3) suggests that throughout the analyzed period of 2015-2018 the competitiveness indicator of PJSC Gazprom in comparison with the key competitors of the fuel and energy industry in the world market was consistently >1 (1.81> C> 1.23), which indicates the high competitive status of the company compared to its key competitors in the foreign market.

Imagine the dynamics of the PJSC Gazprom level of competitiveness in the international arena in 2015-2018-2018 (Figure 4).

5. INTERPRETATION OF RESULTS

Analyzing Figure 4, it can be noted that the competitiveness of PJSC Gazprom was subject to fluctuations in 2017, but in general it is positive with respect to the sample of competitors in the foreign market.

Table 3: PJSC Gazprom competitiveness indicators in comparison with the main competitors in the world market

Indicator	Calculation	2015	2016	2017	2018
C	C(r)*C(i)*C(l)	1.8174	1.8833	1.2314	1.6966
C(r)	R (a)/R (s)	1.1285	1.1738	1.0851	1.1634
R (a)	S (a)/E (a)	1.1528	1.1950	1.1327	1.2284
S (a)		99,563	92,592	112,865	132,648
E (a)		86,363	77,484	99,642	107,987
R (s)	S (s)/E (s)	1.0216	1.0180	1.0438	1.0558
S (s)		209,130	182,334	227,275	276,059
E (s)		204,711	179,103	217,732	261,459
C(i)	I (a)/I (s)	1.0414	1.0667	0.9779	0.9676
I (a)	S (a)/S (0a)	0.6768	0.9300	1.2189	1.1753
S (a)		99,563	92,592	112,865	132,648
S (0a)		147,100	99,563	92,592	112,865
I (s)	S (s)/S (0s)	0.6499	0.8719	1.2465	1.2146
S (s)		209,130	182,334	227,275	276,059
S (0s)		321,763	209,130	182,334	227,275
C(l)	L (a)/L (s)	1.5466	1.5042	1.1604	1.5071
L (a)	CA (a)/CL (a)	1.8797	1.6830	1.3397	1.7028
CA (a)		65,471	49,005	59,815	67,939
CL (a)		34,831	29,118	44,647	39,898
L (s)	CA (s)/CL (s)	1.2154	1.1188	1.1545	1.1298
CA (s)		62,250	59,587	66,203	66,117
CL (s)		51,218	53,257	57,341	58,519
C(a)	R (a)*I (a)*L (a)	1.4667	1.8703	1.8498	2.4583
C(s)	R (s)*I (s)*L (s)	0.8070	0.9931	1.5022	1.4490

Source: Calculated and compiled by the authors

Figure 5 shows the decomposition of the rate of PJSC Gazprom international competitiveness according to the sources of this indicator for 2015-2018: operating efficiency coefficient, strategic positioning coefficient, financial condition ratio (indicators C (r), C (i) and C (l) respectively).

The analysis of evaluation results allows noting that the situation in the international market is partly similar to the situation in the domestic market.

Of all the coefficients that form the overall competitiveness coefficient of the analyzed enterprise, only the strategic positioning coefficient in 2017-2018 turned out to be below the normative

value (<1). The other coefficients throughout the analyzed period remained higher than the standard value. At the same time, it is worth mentioning a sharp decrease in the values of all component coefficients in 2017. But in 2018, the overall ratio returned to approximately the initial value of 2016, which was mainly due to a sharp increase in the financial condition coefficient.

As in the analysis of the PJSC Gazprom competitiveness in the domestic market, the strategic positioning coefficient has the smallest strength of all three components (C) of the coefficients over the entire period: which once again confirms the existence of substantial reserves for increasing the overall rate of the company's competitiveness relying on an increase in this indicator value.

Figure 6 depicts the dynamics of the PJSC Gazprom competitiveness in the context of comparing objects: the resource efficiency coefficient of PJSC Gazprom (C (a)) and the resource use efficiency coefficient for a sample of international competitors (C (s)).

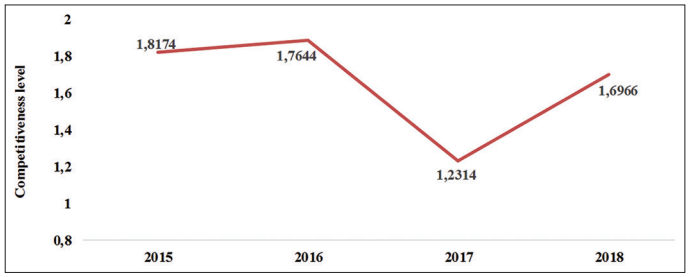
Analyzing the changes in the PJSC Gazprom competitiveness in the foreign market in comparison with the objects of comparison C (a) and C (s) presented in Figure 6, we can state that in the analyzed period there is a tendency to increase the PJSC Gazprom efficiency of resources use (this coefficient since 2015 has increased more than 1.5 times). A positive trend in 2015-2017 was also observed in the whole sample of global competitors, but according to the results of 2018, when the company showed a sharp increase in this indicator, the sample of competitors demonstrated a decrease in this indicator.

PJSC Gazprom, in particular, has enjoyed a stable increase in coefficient C (a) mainly due to an increase in the company's revenue change index (I (a)) (revenue in 2018 increased by more than 25% compared to 2015). A similar situation was throughout the sample from 2015 to 2017; an increase in the resource use efficiency by a sample of competitors C (s) was also due to an increase in the index of change in revenue for the sample (I (s)).

As in the domestic market, according to the analysis, the competitiveness of PJSC Gazprom in comparison with the main oil and gas companies competing in the world market can be generally described as high, but it advisable to pay attention to the fluctuations of this indicator in 2017.

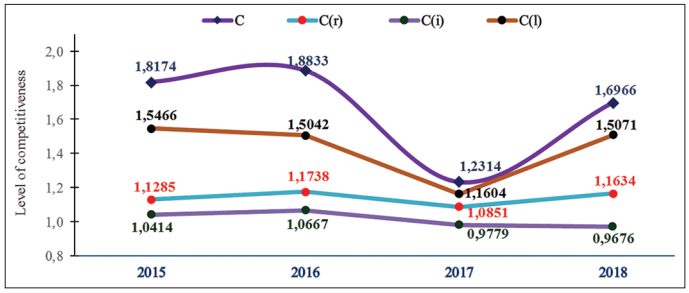
Summing up the outcome of the dynamic analysis of the PJSC Gazprom competitiveness in relation to the leading international competitor companies in the fuel and energy sector,we should note

Figure 4: Dynamics of the competitiveness level of PJSC Gazprom in the foreign market in 2015-2018



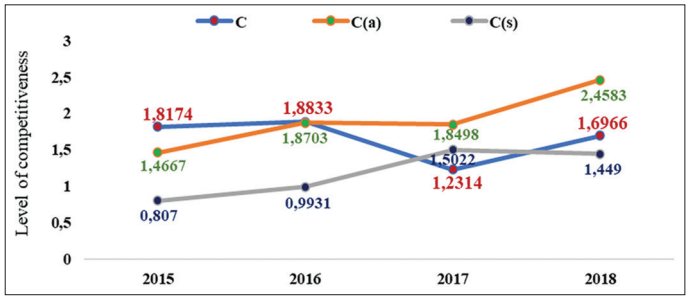
Source: Compiled by the authors based on Table 3 data

Figure 5: The dynamics of the PJSC Gazprom competitiveness in the foreign market in 2015-2018 according to sources



Source: Compiled by the authors based on Table 3 data

Figure 6: Dynamics of PJSC Gazprom's competitiveness in the foreign market for objects of comparison C (a) and C (s)



Source: Compiled by the authors based on Table 3 data

Table 4: Matrix of events based on a comparison of internal and external factors of PJSC gazprom

Power-capabilities	Power-threats
1. The search and development of new natural resources will allow PJSC Gazprom to strengthen its position and increase its share in the global energy market 2. Increased sales in alternative natural gas markets 3. The construction of new pipelines and the reconstruction of old ones will allow the company to win new markets	1. PJSC Gazprom needs to develop plans taking into account the risk of changes in the political and, as a consequence, tax situation (the removal of tax exemptions for new fields) 2. Construction of new pipelines bypassing troubled transit countries (will ensure the reliability of gas supplies to consumers - the main competitive advantage of the company)
Weakness-capabilities	**Weakness-threats**
1. With additional revenue, PJSC Gazprom will be able to use it to search for and develop new energy deposits 2. The company needs to sell inefficient non-core assets redistributing funds to highly efficient core assets	1. It is necessary to develop new fields and construct pipelines 2. Creation of new funds for future financing of these deposits 3. The company should improve efficiency and establish tighter control over costs by strengthening control over the managerial departments of the enterprise at all levels

Source: Compiled by the authors

that the main factor for fluctuations in the overall competitiveness coefficient in the foreign market is the operational efficiency of the company, and the basic reserve for increasing the rate of international competitiveness, as well as in the domestic market, is to increase the coefficient of strategic positioning. This, in turn, can be achieved by increasing the volumes of production and sale of energy resources, which, taking into account the current situation in the oil and gas market, is unrealistic; therefore, the emphasis on increasing the volumes of production should be revised towards the sale of processed products, as well as an analysis of the technological possibilities of entering new markets (for example, through the development of natural gas liquefaction facilities).

6. CONCLUSIONS

By analyzing the level of competitiveness of PJSC Gazprom, as well as its external and internal environment, indicators were identified, the regulation of which will lead to the progressive development of the organization and increase in its competitiveness.

Based on the identified factors, we will design Gazprom development measures according to a set of four of combinations: power with capabilities, power with threats, weaknesses with capabilities and weaknesses with threats (Table 4).

The key reserve for increasing competitiveness, identified in the course of the dynamic analysis of Gazprom, is the increase in sales volumes to improve the index of changes in the company's revenue (one of the sources of the Company's competitiveness).

This, in turn, can be achieved as follows.

To increase sales, PJSC Gazprom is proposed to influence the marketing management system and the sales management system.

It is recommended to include a number of events in the draft marketing policy of the company:

- Strengthening the position of Russian gas supplied by PJSC Gazprom to the EU countries (currently the European market is the most profitable) and concluding long-term cooperation agreements with them. To this end, PJSC Gazprom is recommended to diversify export routes and minimize transit risks
- Increased exports to China (given the rate of Chinese economy development in the future this market may become the most profi])
- -Strengthening PJSC Gazprom's position in the global LNG (liquefied natural gas) market through the implementation of new LNG production projects in Russia and the sale of this energy carrier in the countries of the Asia-Pacific region (as this is one of the key growth centers for global LNG trade). Liquefied natural gas is convenient in transportation and storage and is in great demand in Japan and South Korea. The conclusion of LNG supply agreements with these countries, given the level of their economic development, could significantly increase the company's sales
- Entering the North American market; for this, it is recommended that PJSC Gazprom enter into a cooperation with American partners in the development of new energy production sites
- Improving the contractual base of the company and introducing new forms of trade (for example, selling large quantities of gas products through gas auctions)
- Developing a discount system. As for the foreign market, it is recommended to provide discounts on long-term contracts to increase the flexibility of export policy
- Conducting an effective advertising campaign (to stimulate demand and effectively promote the company's energy in the market).

In order to develop the sales management system of PJSC Gazprom, it is recommended to create competitive advantages at the stage of receiving and processing orders, packaging and preparing products for shipment to customers, shipping products to a vehicle and transporting them to the place of sale or destination. As well to improve the sales network, it is recommended to tighten control over the organization of settlements on transport and loading operations.

In the future, with the increase in sales volumes and, as a result, increased profits, PJSC Gazprom is suggested to make contributions to the following funds: of development and improvement of processes for the provision of oil transportation (increase the chances of entering new markets), conduct of research and development work (for the innovative development of technologies and the creation of new engineering inventions, with the help of which the level of operational activity can be increased), of development of new places energy production (will give the company new sources of raw materials), as well as to direct part of the profit for financial assistance and social services (to maintain the image).

Given the fact that PJSC Gazprom is a high-tech enterprise in order to increase the rate of competitiveness special emphasis must be placed on introducing innovations. For this, the company is recommended to develop and implement innovative technologies in the following areas:

1. Gas business
    - Searching and exploring hydrocarbon deposits, including the development of unconventional resources
    - Increasing the efficiency of existing deposits
    - Developing hydrocarbon resources on the continental shelf
    - Developing new deposits
    - Improving the efficiency of main gas transportation and diversifying methods of gas supply to consumers
    - Increasing the efficiency of gas storage
    - Improving the efficiency of gas and gas-condensate processing
    - Producing liquefied natural gas
    - Selling and using gas.
2. Oil business
    - Producing oil
    - Oil refining and petrochemicals producing.

Organizational innovation is also important for increasing the competitiveness of a knowledge-based enterprise. Thus, PJSC Gazprom can recommend the implementation of the following organizational innovations:

- Developing a knowledge management system
- Introducing a production management system
- Introducing quality management systems
- Increasing operational efficiency, disseminating lean manufacturing principles
- Introducing a productive asset management system based on an assessment of the technical condition and risks
- Systemic informatization and automation of production and business processes
- Introducing a life cycle management system for products (objects) based on modern digital technologies
- Improving the organizational structure and business processes, including the optimization of the structure of production and technological chains.

The implementation of these organizational innovations of PJSC Gazprom will pursue the following aims:

- Reducing the time for preparation, adopting and implementing management decisions (in terms of reducing operating time costs)
- Reducing uncertainty (increasing the reliability and objectivity of the initial information for decision-making) during the preparation and adoption of decisions
- Increasing the quality of managerial decisions (a decrease in the losses of PJSC Gazprom due to incorrect decisions)
- Increasing labor productivity, which will be the result of improving management methods, implementing modern quality control systems, introducing corporate knowledge management systems
- Increasing investment attractiveness of PJSC Gazprom, formed by the Company's efficiency.

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REFERENCES

Analytical Center under the Government of the Russian Federation. (2018), Oil Companies' Efficiency. Energy Bulletin. Available from: https://www.ac.gov.ru/archive/files/publication/a/17636.pdf.

Bondarenko, T., Borodin, A., Zholamanova, M., Panaedova, G., Belyanchikova, T., Gurieva, L. (2020), Investments to the petrochemical sector: The value of the competitiveness of petrochemical companies. Entrepreneurship and Sustainability Issues, 7(3), 2510-2525.

Boussena, S., Locatelli, C. (2017), Gazprom and the complexity of the EU gas market: A strategy to define. Post-Communist Economies, 29(4), 549-564.

BP. (2019), Statistical Review of World Energy. Available from: https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2019-full-report.pdf.

Bradshaw, M., Waterworth, A. (2020), China's Dash for Gas: Local Challenges and Global Consequences. Eurasian Geography and Economics. Available from: https://www.tandfonline.com/action/showcitformats?

Brunekreeft, G., Guliyev, F. (2009), Gas supply security and the competitiveness on the European gas market. In: Jepma, C.J., editor. Gas Market Trading. Groningen: Energy Delta Institute. Available from: https://www.ssrn.com/abstract=2188099.

Kirichenko, O.S., Komzolov, A.A., Nazarova, Y.A., Shcherbakova, N.S., Kirichenko, T.V. (2020), Diversification of Russian oil and gas upstream companies. International Journal of Energy Economics and Policy, 10(3), 112-118.

Kulagin, V.A., Melnikova, S.I., Galkina, A. A., Osipova, E.D., Kozina, E.O. (2016), Prospects for Russian Gas in the European Market in the Context of Changing Market Conditions, Regulatory Environment and EU Energy Policy. International Organizations Research Journal: Education, Science, New Economy, 2016. Available from: https://www.cyberleninka.ru/article/n/perspektivy-rossiyskogo-gaza-na-evropeyskom-rynke-v-kontekste-izmeneniya-rynochnyh-usloviy-regulyatornoy-sredy-i-energeticheskoy.

Liuhto, K.T. (2002), Russian gas and oil giants conquer markets in the west. Journal of East-West Business, 7(3), 31-72.

Liuhto, K.T., Majuri, S.S. (2014), Outward foreign direct investment from Russia: A literature review. Journal of East-West Business, 20(4), 198-224.

Locatelli, C. (2014), The Russian gas industry: Challenges to the gazprom model. Post-Communist Economies, 26(1), 53-66.

Melitz, M.J. (2003), The impact of trade on intra-industry reallocations and aggregate industry productivity. Econometrica, 71(6), 1695-1725.

Olsen, M. (2013), The Future of National oil Companies in Russia and How they May Improve their Global Competitiveness. Vol. 35. United States, Houston Journal of International Law.

Romanova, T.A. (2016), Is Russian energy policy towards the EU only about geopolitics? The case of the third liberalisation package. Geopolitics, 21(4), 857-879.

Vahtra, P., Liuhto, K. (2006), An overview of Russia's largest corporations abroad. Journal of East-West Business, 11(3-4), 23-40.

Vlček, T., Jirušek, M. (2019), Comparison with Russian operations in the sector of natural gas: The case of gazprom. In: Russian Oil Enterprises in Europe. Cham: Palgrave Macmillan. p211-232.

Voronov, D.S. (2014), Enterprise Competitiveness: Assessment, Analysis, Ways to Improve. Ekaterinburg: Publishing House of Ural State Technical University. p221.