

Anastasiia KUTILKINA

National Mineral Resources University (Mining University)

Saint-Petersburg, Russia

kut_anastasia@mail.ru

Alexey CHEREPOVITSYN

National Mineral Resources University (Mining University)

Saint-Petersburg, Russia

alekseicherepov@inbox.ru

PECULIARITIES OF THE RUSSIAN SMALL OIL BUSINESS' DEVELOPMENT IN THE CURRENT ECONOMIC ENVIRONMENT

Summary. Nowadays Russian oil industry development faces to the problems of oil depletion, mineral resource base deterioration and hard to recover reserves growth. International experience shows that one of the effective solutions of this problem can be small and medium enterprises' creation. Small oil companies are able to develop marginal oil-wells in difficult geological conditions. The research of problems, state of the art and development prospects of small oil enterprises in Russia is carried out in the article. The investigation of innovative capacity and small oil companies' ability to develop hard to recover reserves are studied. Special attention is paid to the matter of the small oil business' operation in the context of current situation and economic slump. Efficiency and high performance indexes of small enterprises in this sector were proved.

Keywords: small oil company; small oil business; hard-to-recover reserves; economic crisis.

ROZWÓJ MAŁYCH, ROSYJSKICH PRZEDSIĘBIORSTW NAFTOWYCH W AKTUALNYCH UWARUNKOWANIACH EKONOMICZNYCH

Streszczenie. Obecnie rozwój rosyjskiego przemysłu naftowego staje w obliczu niedoboru ropy naftowej, wyczerpywania złóż surowców mineralnych i wzrostu liczby zasobów naturalnych z utrudnioną dostępnością. Analiza międzynarodowych doświadczeń w tym zakresie wskazuje, że jednym z efektywniejszych rozwiązań tego problemu może być tworzenie małych i średnich przedsiębiorstw naftowych. Małe przedsiębiorstwa naftowe mogą zagospodarować niewielkie, skrajnie położone złoża ropy naftowej w trudnych warunkach

geologicznych. W artykule podjęto rozważania na temat wskazanego problemu, opierając się na aktualnym stanie wiedzy oraz perspektywach rozwojowych małych przedsiębiorstw naftowych w Rosji. Przeanalizowano zdolności innowacyjne oraz możliwości małych przedsiębiorstw naftowych w obszarze zagospodarowania trudno dostępnych złóż. Szczególną uwagę zwrócono na zagadnienie funkcjonowania małych przedsiębiorstw naftowych w aktualnych uwarunkowaniach ekonomicznych i gospodarczych. W artykule wykazano, że małe i średnie przedsiębiorstwa naftowe cechują wysoka wydajność i efektywność ekonomiczna.

Słowa kluczowe: małe przedsiębiorstwa naftowe, trudno dostępne złoża ropy naftowej, kryzys ekonomiczny.

1. Introduction

Nowadays world oil industry and Russian oil industry in particular face to the problems of oil depletion, mineral resource base deterioration and hard to recover reserves growth. Different measures for these problems' solving are taken. First of all, it's the implementation of new oil and gas development technologies intended to enhanced oil recovery and oil recovery index increase. Besides the technologies some steps can be taken from the standpoint of economics and management. International experience shows that one of the effective solutions of this problem can be small and medium enterprises' creation. Small oil companies are able to develop both abandoned marginal oil-wells in difficult geological and production settings and new tiny and small oil fields with hard-to-recover reserves. For instance, nowadays there are about 7-8 thousands of small independent oil enterprises in the USA; such companies' share in national drilling is 90% and in oil extraction is 65%. One third of the whole oil volume in Canada is extracted by small private companies (juniors) which amount in the country ran up to several thousands. Mutually advantageous coexistence of large and small oil business is guaranteed in the UK in response to the government support and goal-oriented government policy. Norwegian small oil enterprises take benefits from the state and very active in new oil and gas technologies' implementation.

It should be noticed that main directions for small oil companies' development are differ from one country to another. For example, US small oil business is in the best position to many fields of activities ranging from mining geophysics and service to innovative technologies' implementation. In view of geographical location characteristics of UK small oil enterprises in this country are focused on the oil service, consultancy and oil and gas equipment manufacturing and delivery. This sector is undeveloped in Russia and all companies that exist on the market specialize on oil extraction and drilling. According to many experts, small enterprises in Russia achieved a good result – about 17% of all nation's development drilling. This result is significant for such a small group of companies.

As concerns about the scopes of activities for Russian small oil companies we need to emphasize two main strategies. The first one is a tiny and small fields discovery and development and unallocated subsoil reserve fund involvement to development. The second type of activity is an exploitation of abandoned oil fields located in the areas with difficult geologic and production settings. Both directions have many advantages and disadvantages and could be used depending on mineral resource base unique features and geographic areas (Figure 1).

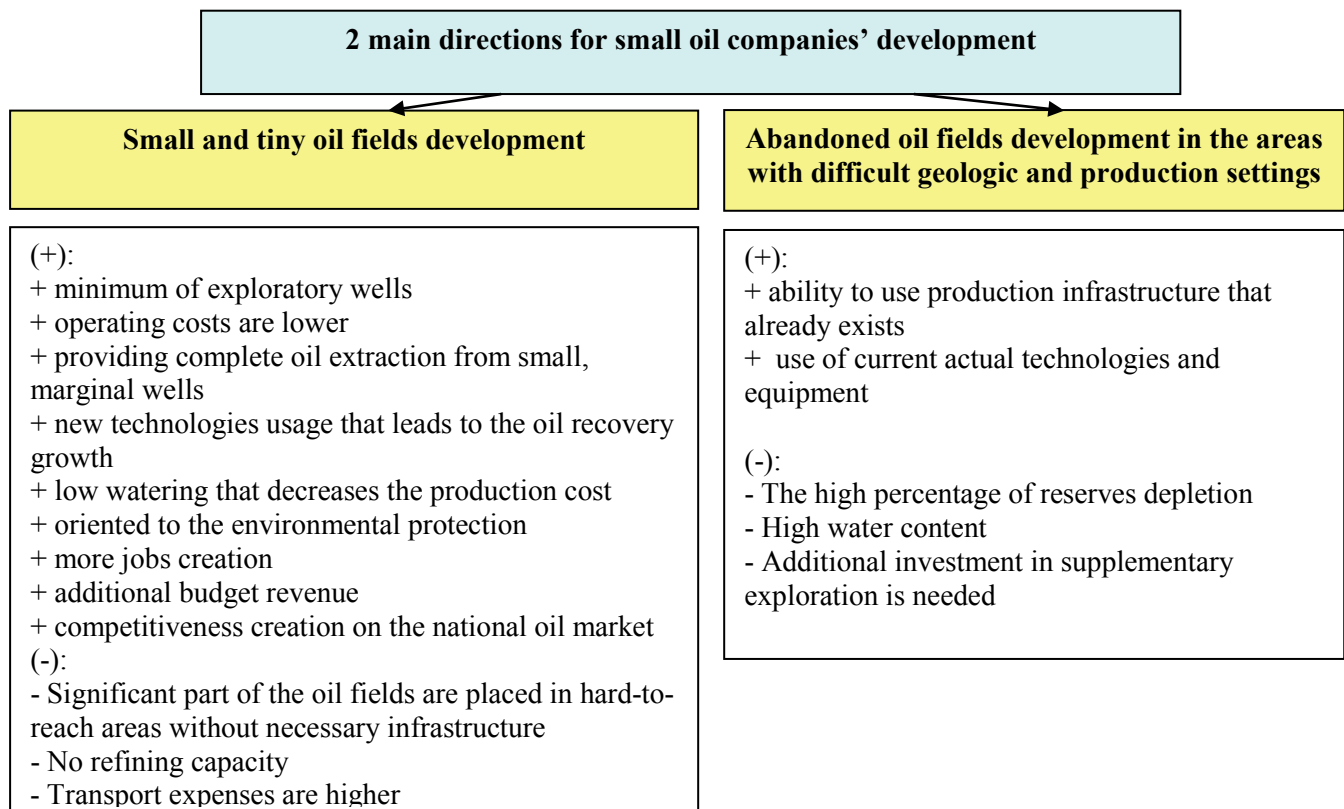


Fig. 1. The Main Directions for Russian Small Oil Companies' Development

Rys. 1. Główne kierunki rozwoju małych, rosyjskich przedsiębiorstw naftowych

Source: Developed and offered by the authors.

2. Factors that hamper small oil business' development and advantages of small oil enterprises in Russia

Russian sector of small oil companies faces to a number of difficulties. The first problem involves that there is no secured in legislation status for such companies. It leads to the lack of tax payments' differentiation for large and small companies (both types of enterprises pay taxes up to 60-70% of revenue for barrel). It has a bad influence on small oil companies

which develop small fields and also fields with difficult conditions of production (a low production, high water cut).

Position of small enterprises depends on the world prices of oil, but in the return ratio: the higher the world price for oil, the worse position of such companies. This problem is also connected with two factors. The first one is the system of taxation applied equally to the vertically integrated companies and to small enterprises. Second factor consist in the situation when such enterprises have no opportunity to process or export the extracted oil, realizing it only in domestic market.

The other reason why small enterprises should "survive" in the oil and gas market is in high barriers to entry to oil business. According to Russian subsoil law a one-time payment for use of natural resources of 10% of the mineral extraction tax sum counting on average annual design capacity of the organization is established. The enterprise can solve this problem only if it possesses the impressive sum of current assets because small companies have four times more capital expenditures for oil barrel than vertically integrated holdings [6].

Limited access to infrastructure and its high cost create an additional barrier to development of the small companies. Vertically integrated companies try to limit or even exclude access of small enterprises to the infrastructure; such companies also can use this factor as one of methods for merger.

The high rates of interest on credits are one more criteria that make small oil enterprises' entry into the market impossible. Small enterprises in Russia are granted the loans under 9-10% per annum while the large companies have opportunity to take the credits at the rate 2-3 times lower. Private investments can be one of exits in this case.

The matter of associated petroleum gas utilization is also a big problem for small companies which don't have capacities for its processing. It reduces profitability and competitiveness of the small enterprises compared to the big vertically integrated ones.

The most significant factors which have a bad influence on the Russian small oil business' development are described in Figure 2.

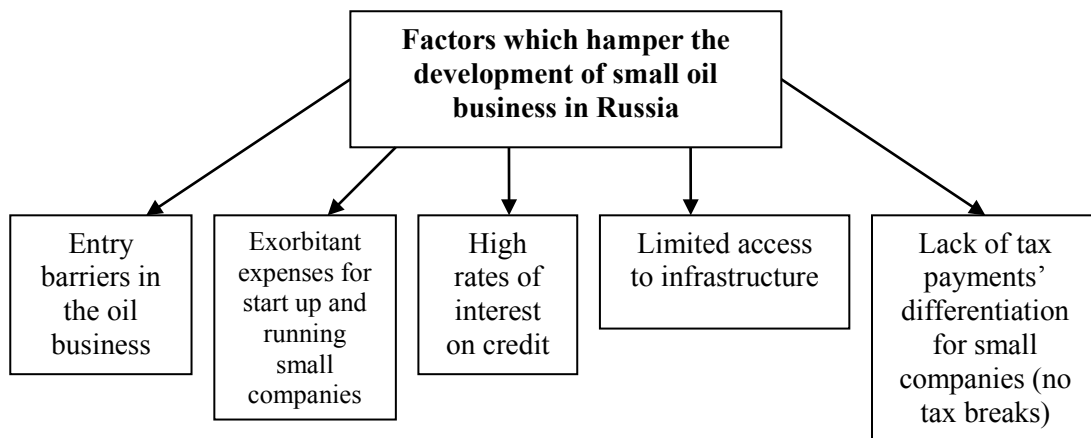


Fig. 2. Factors Which Hamper the Development of Small Oil Business in Russia

Rys. 2. Czynniki utrudniające rozwój małych, rosyjskich przedsiębiorstw naftowych

Source: Developed and offered by the authors.

Nevertheless, the enterprises of small oil business have a number of advantages in comparison with the large vertically integrated ones. First, small enterprises are capable to develop small marginal wells which operation is inefficient and unprofitable by the large companies. Secondly, opening of small enterprises promotes creation of new workplaces and establishment of social stability that is especially important for the distant regions. Thirdly, the small oil-extracting companies are taxpayers in those areas where they settle down and make a basis of the budgetary income of the region. Such companies promote development of innovative technologies of oil production, and also can bring essential benefit for utilization of drilling cuttings and waste products. It should be noted also the high level of mobility of small enterprises. Small enterprises react much more quicker to changing situation in the sphere of innovative technological development. Besides, innovations' introduction at the large enterprises borrows much more time. Such companies can also form a competitive environment in the oil and gas market. Amid the financial crisis and stagnation lower operating costs and costs of supervision becomes an extremely important positive factor.

All these advantages contributed to incremental oil production provided by small oil companies even in the period of crisis. Small business increased the oil extraction from 14,6 to 21,5 over a period of 2009 – 2014. It's not a big progress but this dynamic seems to be positive in comparison with the oil extraction reduction provided by large independents (Figure 3).

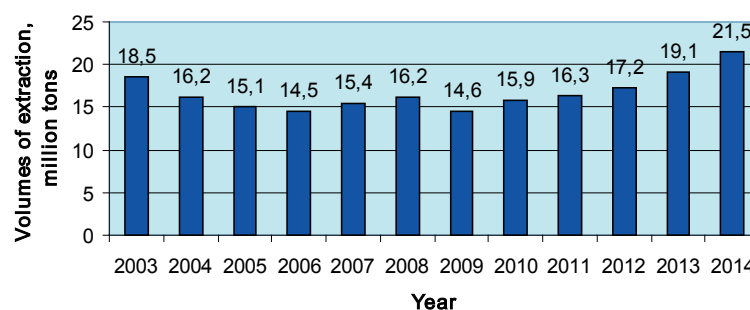


Fig. 3. Russian Small Oil Companies Production Data

Rys. 3. Produkcja małych przedsiębiorstw naftowych

Source: Statistical information

3. Recommendations for Russian small oil business' development

It should be noted that economical crisis and imposed sanctions had the other effect that it was expected. This taken action gave a push to search and development of new Russian technologies and influenced on creation of import substitution programs. The developed crisis situation and oil prices falling at the end of 2014 – the beginning of 2015 made active the

small oil enterprises, considerably having increased their share in such sphere as geologic exploration. At the moment the small companies are ready to start new projects. According to the Moscow School of Management SKOLKOVO, creation of favorable conditions for development and deployment of new technologies of production of "heavy" oil will allow to increase annual production by 42-43 million t by 2030 in our country [3].

As it was mentioned before, effective operation of small oil companies abroad was provided by special preferences and benefits from the state. Our country should use the best practices in a combination with specific measures to support of small oil business' activity. The most debating point in this case is a statutory definition of the term "small oil enterprise". Moscow School of Management SKOLKOVO made attempts of creation a system of criteria for small independent companies using only three points – government independence, limits for refinery processing and retail. In our opinion, these indicators are not representative of small enterprises' peculiarities. That's why some additional criteria that specify a level of activity for such companies should be considered (Table 1).

Table 1

Proposed additional criteria for small oil companies

Criterion	Formulation
Form of ownership	Private
Production Volume	< 500 000 tons per year
Authorized capital structure and development	Private funds
Extension of developed fields	Small, in the difficult mining and geological settings
Staffing level	Depends on the type of activity, 100 people average
The amount of persons responsible for main managerial decisions	1-3 people

Source: Developed and offered by the authors.

For the purpose of small oil business' development some steps should be taken. Among them are:

- statutory definition of the term "small oil enterprise", size determination for small companies (according to such criteria as production volume, revenue, staff and others);
- different taxation systems for vertically integrated and small companies should be implemented;
- credits for small companies on more favourable terms;
- auction sales for small oil companies only;
- payment delay for mineral resource extraction in response to field discovery;

- increase of small companies' oil sales both to Russian and international markets;
- creation a system for provision of equipment under leasing agreements for small oil enterprises;
- concessions' and other forms of public-private partnership creation.

The special attention should be given to interaction models for business and government.

Proposed forms are given in Figure 4.

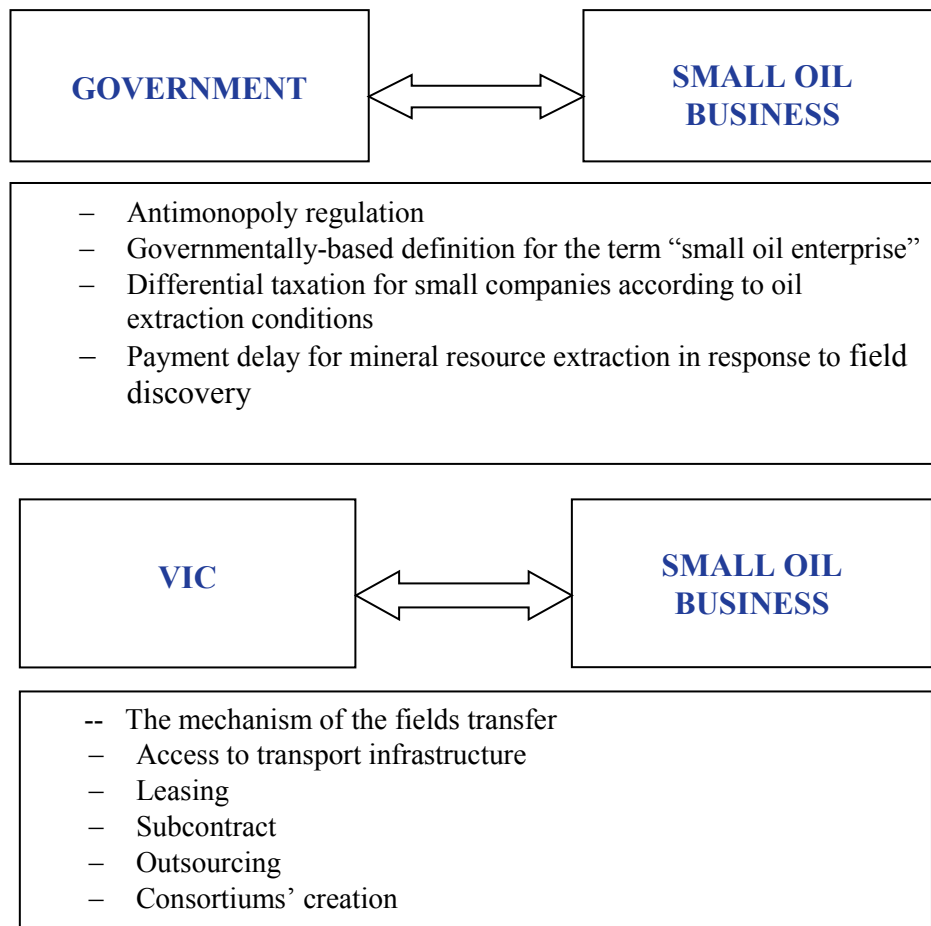


Fig. 4. Models of Interaction Between Small Companies, Vertically Integrated Companies (VIC) and the Government

Rys. 4. Modele interakcji między małymi przedsiębiorstwami a przedsiębiorstwami zintegrowanymi pionowo oraz między małymi przedsiębiorstwami a państwem

Source: Developed and offered by the authors.

4. Conclusions

Many experts consider that small oil companies will not be able to stand their ground because of the crisis situation in oil production sector. In their point of view such enterprises can be taken up by large corporations or it will have to withdraw from the market at all. However current practice shows that crisis didn't affect small oil companies and on the

contrary, gave them driver for growth and to development of new national technologies. It is also important to mention that small and medium-sized enterprises have advantages in this situation in comparison with vertically integrated companies. Small ones have little currency credits and don't have expenses on the expensive equipment and technologies. They also don't bear the costs of petroleum refinery modernization.

The government should pay special attention to support of initiatives of the small companies and to reconsider the existing system of the taxation. Thus, small enterprises can be very effective for hard-to-recover oil extraction, tiny and small fields' development, oil extraction from the fields in difficult geological settings and oil recovery index increase on the Russian fields due to support from the state.

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Omówienie

W artykule przedstawiono zagadnienie dotyczące funkcjonowania małych przedsiębiorstw naftowych w Rosji. Sektor ten jest rozwinięty w USA, Kanadzie i wielu krajach europejskich, gdzie potwierdził swoją efektywność, a jego rozwój okazał się dobrym rozwiązaniem problemów w przemyśle naftowym, takich jak: wyczerpywanie zasobów surowców mineralnych, wzrost liczby trudno dostępnych złóż czy niedobór ropy naftowej. Małe przedsiębiorstwa naftowe są w stanie zagospodarować zarówno opuszczone, skrajnie położone złoża ropy naftowej w trudnych warunkach geologicznych i wydobywczych, jak i nowe, małe i bardzo małe pola naftowe z trudno dostępnymi złożami. Niestety w Federacji Rosyjskiej proces utworzenia tego sektora napotyka wiele trudności o charakterze administracyjnym i organizacyjnym (np. duże bariery związane z wejściem do branży naftowej, wysokie oprocentowanie kredytów, wygórowane koszty wejścia i prowadzenia małych firm, ograniczony dostęp do infrastruktury itp.). Należy zauważyć, że nie ma ustalonego również statusu prawnego dla takich przedsiębiorstw.

Pomimo to przedsiębiorstwa z sektora naftowego mają wiele mocnych stron, które pomagają im w osiągnięciu dobrych wyników w zakresie wydobycia i pozyskiwania ropy naftowej, w szczególności w kontekście obecnej sytuacji i spowolnienia gospodarczego. Podczas kryzysu finansowego i stagnacji niższe koszty działalności oraz koszty nadzoru dla takich firm są niezmiernie ważnym, pozytywnym aspektem, ułatwiającym im powstanie i rozwój. Rosja powinna wykorzystać najlepsze praktyki w połączeniu ze szczególnymi środkami wspierania działalności małych przedsiębiorstw naftowych. W artykule zaproponowano specjalny system wsparcia dla małych, rosyjskich, niezależnych przedsiębiorstw naftowych. Sformułowano też rekomendacje dla rozwoju małych przedsiębiorstw naftowych. Dodatkowo opracowano modele interakcji dla biznesu i rządu.