UDK 658.5:553.9

Oil and gas vertically integrated companies of Russia: logistics problems

N. D. Dolgova

Peoples' Friendship University of Russia Moscow, Russia e-mail: nate.dolgova2015@yandex.ru

Abstract

Purpose. The main scientific and practical results of the development of oil and gas vertically integrated companies of Russia on the basis of improving the logistics processes and reducing their costs are given.

Methodology. The methods of complex generalization, analysis and evaluation of practical experience and scientific research for achieving the set goal are described.

Results. It hereby found that logistic operations involve the management of the transportation of hydrocarbons, and the points for transshipment of petroleum products - under the objects of the logistics infrastructure. In the annual accounts, they refer to the transportation costs of the company, which indicates a narrow focus of logistics processes in Russian companies.

Scientific novelty. It has been proved that such areas as production logistics, information, distribution, and logistics of inventory management are not sufficiently covered, as the companies strictly regulate procurement activities.

Practical significance. The necessity of logistics with a clear study of the efficiency of logistics activities, which require attention through the creation of a logistics control system at enterprises of vertically integrated companies in the oil and gas sector, is suggested.

Key words: LOGISTICS, VERTICALLY INTEGRATED COMPANIES, LOGISTICS PROCESSES, SYSTEMS, OIL AND GAS SECTOR

Introduction

At present all developments in the field of oil and gas sector management are aimed at improving the management of innovative projects, restructuring oil companies, managing risks, protecting labor, security, investment activities and improving taxation [1-3]. The issue of reducing logistics costs has always made company executives anxious.

The entry of the Russian Federation into the World Trade Organization has updated this topic, putting it into the category of economic problems. Therefore, the development of oil-and-gas vertically integrated companies in Russia on the basis of improving logistics processes and reducing their costs is an important scientific, practical and social task that requires a prompt decision [4-8].

Research Methodology and Accepted Terms

It is the analysis of the previously performed studies and control observations, mathematical and physical modeling, analysis and statistical processing of results, determination of dependencies, fulfillment of calculations and justifications, experimental studies

Logistics in industry

on standard and new techniques. At the same time, the following terminology is used [9]: VIOC (vertically integrated oil companies) are oil companies that are joint-stock companies in the form of ownership and acting as mother companies in relation to other subsidiaries of oil refineries and other companies. At the same time, subsidiaries are virtually independent of VIOC, and they have their own management and the board of directors. The parent company only gives them specific tasks that contribute to the achievement of certain financial results.

Discussion of Research Results

A significant special aspect of Russian VIOC is a high degree of the state equity. Considering the structures of oil and gas vertically integrated companies in subsidiaries and dependent companies, it can be noted that logistics processes are the main ones, and this is indicated by a large amount of logistics costs. For example, in 2010 Rosneft PJSC spent 33.8% of the company's costs for procurement, and 6,191 organizations were accredited. In addition, in PJSC Lukoil, according to the estimates for the end of 2016, stocks of materials were worth USD 934 million [9-11].

It can be noted that in the vertically integrated companies of Russia, transportation costs are 5.1-11.4% (table). Some companies manages to reduce the general transportation costs (Lukoil, Tatneft), and in others, on the contrary, there is an increase in costs (Rosneft) [12].

The management of many oil and gas companies in Russia has taken a decision on the need to reduce operating costs by reducing logistics costs. The operations on material and technical supply for internal outsourcing, as well as transport operations, were withdrawn. For example, in 2010, a transport company Rosneft Logistics was established in PJSC Rosneft for

the purpose of releasing oil refineries from functions not related to oil refining.

Ensuring the needs of companies for services, goods at the best prices in a short time and good quality is the purpose of the procurement process. To achieve this purpose, vertically integrated oil and gas companies create logistics departments.

A subsidiary Gazpromneft-Supply was established in PJSC Gazprom-Neft, endowed with similar processes. The main activities of the enterprise include: cargo transportation by water, rail and road transport, management of logistics and projects, integrated solutions for consolidation, warehousing and storage of goods, development of transport and technological transportation schemes and others.

Areas of Further Research

At present, the issue of the aforementioned logistics areas is relevant with a clearer elaboration of the issues of the efficiency of the logistics chain activities. They require attention through the creation of a logistics control system at enterprises of vertically integrated companies in the oil and gas sector.

It can be found from the analysis and generalization of the experience of oil and gas vertically integrated companies in Russia as follows.

- 1. *It is hereby found* that logistic operations imply the management of the transportation of hydrocarbons, and the points for the transshipment of oil products and the objects of the logistics infrastructure. In the annual accounts, they refer to the transportation costs of the company, which indicates a narrow focus of logistics processes in Russian companies.
- 2. *It has been shown* that such areas as production logistics, information, distribution, and logistics of inventory management are not sufficiently covered, as the companies strictly regulate procurement activities.

Table. Transportation costs in the total costs of vertically integrated companies

Indicator	Year			
	2013	2014	2015	2016
PJSC Rosneft				
Costs and expenses of the company, bln RUB	2,249.0	2,677.0	4,139.0	4,144.1
• for oil products transportation and oil export, bln RUB	216.0	241.0	392.0	471.0
• transportation costs, %	9.6	9.0	9.5	11.4
PJSC Lukoil				
Costs and expenses of the company, mln USD	120,495.0	125,101.0	138,891.0	137,041,0
• for petroleum products transportation and oil export, mln USD	6,121.0	6,171.0	6,290.0	5,894.0
operating expenses, mln USD	9,055.0	9,359.0	10,086.0	10,115.0
• for oil transportation to refineries, mln USD	1,060.0	1,241.0	1,265.0	1,036.0
• transportation costs, %	6,0	5.9	5.4	5.1
OJSC Tatneft				
Costs and expenses of the company, bln RUB	323.00	342.42	350.57	369.83
• for oil products transportation and oil export, bln RUB	21.76	29.11	30.39	23.21
• transportation costs, %	6.74	8.50	8.66	6.28

Logistics in industry

Reference List

- 1. Azadeh, A., Raoofi, Z., & Zarrin, M. (2015). A multi-objective fuzzy linear programming model for optimization of natural gas supply chain through a greenhouse gas reduction approach. Journal of Natural Gas Science and Engineering, 26, 702-710.
- 2. Kolinski, A., & Sliwczynski, B. (2015). IT support of production efficiency analysis in ecological aspect. In Technology Management for Sustainable Production and Logistics (pp. 205-219). Springer Berlin Heidelberg.
- 3. Vorobiev K.A. (2017) Economic Formation of the Transport and Logistics System. Publishing house: LAP LAMBERT. Mauritius. ISBN: 978-620-2-07978-5. p.72.
- 4. Musina D.R. (2015) Time Management for Implementation of the Oil and Gas Project. // Innovative science. No.8-1 (8). p. 38-41.
- 5. Avdeeva L.A., Gerasimova M.V. (2015) Problems of standardization of management of oil and gas investment projects. // Internet-journal 'Naukovedenie' Volume 7. No.3 http://naukovedenie.ru/PDF/23EVN315.pdf
- 6. Tasmukhanova A.E., Mazitova A.R. (2014) Formation of a methodology for a comprehensive assessment of the effectiveness of oil and gas company restructuring // In:

- Problems and Prospects of Economics and Management. Materials of the III International Scientific Conference. St. Petersburg, pp. 216-221.
- 7. Engelseth, P. & Pettersen, T.M. (2016) Agent-based modelling of offshore upstream petroleum logistics. International Journal of Design & Nature and Ecodynamics, 11(4), pp. 635–643.
- 8. Hammervoll, T. (2014) Service provision for co-creation of value: insights from exchangeand production economy perspectives //International Journal of Physical Distribution and Logistics Management, 44(½), 155–168.
- 9. Mutalov S.V., Musina D.R. (2014) Methodical Approach to assessing economic losses in the industrial safety of an oil company // Scientific Journal Vestnik VEGU, No. 1-2. p. 70-76.
- Biryukova V.V. (2014) Factors of sustainable development of the oil company // Internet journal 'Naukovedenie' No. 5 (24). p. 93. http:// naukovedenie.ru/PDF/62EVN514/pdf
- 11. Khayrullin V.A., Sayfullina S.F. (2013) Risk assessment of economic systems with high uncertainty. Internet-journal 'Naukovedenie'. No.4 (17). p. 48.
- 12. Kotov D.V., Efimova O.Yu. (2012) Evaluation of the strategic potential of innovation. // Scientific Review. No.4. pp. 539-549.



www.metaljournal.com.ua