

ISSN 2518-1467 (Online),
ISSN 1991-3494 (Print)

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ
ҰЛТТЫҚ ҒЫЛЫМ АКАДЕМИЯСЫНЫҢ

Х А Б А Р Ш Ы С Ы

ВЕСТНИК

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК
РЕСПУБЛИКИ КАЗАХСТАН

THE BULLETIN

THE NATIONAL ACADEMY OF SCIENCES
OF THE REPUBLIC OF KAZAKHSTAN

PUBLISHED SINCE 1944

1

JANUARY – FEBRUARY 2021

ALMATY, NAS RK

NAS RK is pleased to announce that Bulletin of NAS RK scientific journal has been accepted for indexing in the Emerging Sources Citation Index, a new edition of Web of Science. Content in this index is under consideration by Clarivate Analytics to be accepted in the Science Citation Index Expanded, the Social Sciences Citation Index, and the Arts & Humanities Citation Index. The quality and depth of content Web of Science offers to researchers, authors, publishers, and institutions sets it apart from other research databases. The inclusion of Bulletin of NAS RK in the Emerging Sources Citation Index demonstrates our dedication to providing the most relevant and influential multidiscipline content to our community.

Қазақстан Республикасы Ұлттық ғылым академиясы "ҚР ҰҒА Хабаршысы" ғылыми журналының Web of Science-тің жаңаланған нұсқасы Emerging Sources Citation Index-те индекстелуге қабылданғанын хабарлайды. Бұл индекстелу барысында Clarivate Analytics компаниясы журналды одан әрі the Science Citation Index Expanded, the Social Sciences Citation Index және the Arts & Humanities Citation Index-ке қабылдау мәселесін қарастыруда. Web of Science зерттеушілер, авторлар, баспашылар мен мекемелерге контент тереңдігі мен сапасын ұсынады. ҚР ҰҒА Хабаршысының Emerging Sources Citation Index-ке енуі біздің қоғамдастық үшін ең өзекті және беделді мультидисциплинарлы контентке адалдығымызды білдіреді.

НАН РК сообщает, что научный журнал «Вестник НАН РК» был принят для индексирования в Emerging Sources Citation Index, обновленной версии Web of Science. Содержание в этом индексировании находится в стадии рассмотрения компанией Clarivate Analytics для дальнейшего принятия журнала в the Science Citation Index Expanded, the Social Sciences Citation Index и the Arts & Humanities Citation Index. Web of Science предлагает качество и глубину контента для исследователей, авторов, издателей и учреждений. Включение Вестника НАН РК в Emerging Sources Citation Index демонстрирует нашу приверженность к наиболее актуальному и влиятельному мультидисциплинарному контенту для нашего сообщества.

Б а с р е д а к т о р ы
х.ғ.д., проф., ҚР ҰҒА академигі
М.Ж. Жұрынов

Р е д а к ц и я а л қ а с ы:

Абиев Р.Ш. проф. (Ресей)
Абылкасымова А.Е. проф., академик (Қазақстан)
Аврамов К.В. проф. (Украина)
Аппель Юрген проф. (Германия)
Банас Иозеф проф. (Польша)
Велесько С. проф. (Германия)
Велихов Е.П. проф., РҒА академигі (Ресей)
Кабульдинов З.Е. проф. (Қазақстан)
Қалимолдаев М.Н. проф., академик (Қазақстан), бас ред. орынбасары
Қамзабекұлы Д. проф., академик (Қазақстан)
Қойгелдиев М.К. проф., академик (Қазақстан)
Лупашку Ф. проф., корр.-мүшесі (Молдова)
Новак Изабелла проф. (Германия)
Полещук О.Х. проф. (Ресей)
Поняев А.И. проф. (Ресей)
Сагиян А.С. проф., академик (Армения)
Таймагамбетов Ж.К. проф., академик (Қазақстан)
Хрипунов Г.С. проф. (Украина)
Шәукенова З.К. проф., корр.-мүшесі (Қазақстан)
Юлдашбаев Ю.А. проф., РҒА академигі (Ресей)
Якубова М.М. проф., академик (Тәжікстан)

«Қазақстан Республикасы Ұлттық ғылым академиясының Хабаршысы».

ISSN 2518-1467 (Online),
ISSN 1991-3494 (Print)

Меншіктенуші: «Қазақстан Республикасының Ұлттық ғылым академиясы»РҚБ (Алматы қ.).

Қазақстан Республикасының Ақпарат және коммуникациялар министрлігінің Ақпарат комитетінде
12.02.2018 ж. берілген № **16895-Ж** мерзімдік басылым тіркеуіне қойылу туралы куәлік.

Тақырыптық бағыты: *іргелі ғылымдар саласындағы жаңа жетістіктер нәтижелерін жария ету.*

Мерзімділігі: жылына 6 рет.
Тиражы: 2000 дана.

Редакцияның мекенжайы: 050010, Алматы қ., Шевченко көш., 28, 219 бөл., 220,
тел.: 272-13-19, 272-13-18, <http://www.bulletin-science.kz/index.php/en/>

© Қазақстан Республикасының Ұлттық ғылым академиясы, 2021

Типографияның мекенжайы: «NurNaz GRACE», Алматы қ., Рысқұлов көш., 103.

Главный редактор
д.х.н., проф. академик НАН РК
М.Ж. Журинов

Редакционная коллегия:

Абиев Р.Ш. проф. (Россия)
Абылкасымова А.Е. проф., академик (Казахстан)
Аврамов К.В. проф. (Украина)
Аппель Юрген проф. (Германия)
Банас Иозеф проф. (Польша)
Велесько С. проф. (Германия)
Велихов Е.П. проф., академик РАН (Россия)
Кабульдинов З.Е. проф. (Казахстан)
Калимолдаев М.Н. академик (Казахстан), зам. гл. ред.
Камзабекулы Д. проф., академик (Казахстан)
Койгельдиев М.К. проф., академик (Казахстан)
Лупашку Ф. проф., чл.-корр. (Молдова)
Новак Изабелла проф. (Германия)
Полещук О.Х. проф. (Россия)
Поняев А.И. проф. (Россия)
Сагиян А.С. проф., академик (Армения)
Таймагамбетов Ж.К. проф., академик (Казахстан)
Хрипунов Г.С. проф. (Украина)
Шаукенова З.К. проф., чл.-корр. (Казахстан)
Юлдашбаев Ю.А. проф., академик РАН (Россия)
Якубова М.М. проф., академик (Таджикистан)

«Вестник Национальной академии наук Республики Казахстан».

**ISSN 2518-1467 (Online),
ISSN 1991-3494 (Print)**

Собственник: РОО «Национальная академия наук Республики Казахстан» (г. Алматы).

Свидетельство о постановке на учет периодического печатного издания в Комитете информации Министерства информации и коммуникаций и Республики Казахстан № **16895-Ж**, выданное 12.02.2018 г.

Тематическая направленность: публикация результатов новых достижений в области фундаментальных наук.

Периодичность: 6 раз в год.
Тираж: 2000 экземпляров.

Адрес редакции: 050010, г. Алматы, ул. Шевченко, 28, ком. 219, 220, тел. 272-13-19, 272-13-18.
<http://www.bulletin-science.kz/index.php/en/>

© Национальная академия наук Республики Казахстан, 2021

Адрес типографии: «NurNazGRACE», г. Алматы, ул. Рыскулова, 103.

Editor in chief

doctor of chemistry, professor, academician of NAS RK

M.Zh. Zhurinov

Editorial board:

Abiyev R.Sh. prof. (Russia)
Abylkasymova A.E. prof., academician (Kazakhstan)
Avramov K.V. prof. (Ukraine)
Appel Jurgen, prof. (Germany)
Banas Joseph, prof. (Poland)
Velesco S., prof. (Germany)
Velikhov Ye.P. prof., academician of RAS (Russia)
Kabuldinov Z.E. prof. (Kazakhstan)
Kalimoldayev M.N. prof., academician (Kazakhstan), deputy editor in chief
Kamzabekuly D. prof., academician (Kazakhstan)
Koigeldiev M.K. prof., academician (Kazakhstan)
Lupashku F. prof., corr. member (Moldova)
Nowak Isabella, prof. (Germany)
Poleshchuk O.Kh. prof. (Russia)
Ponyaev A.I. prof. (Russia)
Sagiyani A.S. prof., academician (Armenia)
Taimagambetov Zh.K. prof., academician (Kazakhstan)
Khripunov G.S. prof. (Ukraine)
Shaukenova Z.K. prof., corr. member. (Kazakhstan)
Yuldashbayev Y.A., prof., academician of RAS (Russia)
Yakubova M.M. prof., academician (Tadjikistan)

Bulletin of the National Academy of Sciences of the Republic of Kazakhstan.

ISSN 2518-1467 (Online),
ISSN 1991-3494 (Print)

Owner: RPA "National Academy of Sciences of the Republic of Kazakhstan" (Almaty).

The certificate of registration of a periodical printed publication in the Committee of information of the Ministry of Information and Communications of the Republic of Kazakhstan No. **16895-Ж**, issued on 12.02.2018.

Thematic focus: *publication of the results of new achievements in the field of basic sciences.*

Periodicity: 6 times a year.

Circulation: 2000 copies.

Editorial address: 28, Shevchenko str., of. 219, 220, Almaty, 050010, tel. 272-13-19, 272-13-18,
<http://www.bulletin-science.kz/index.php/en/>

© National Academy of Sciences of the Republic of Kazakhstan, 2021

Address of printing house: «NurNaz GRACE», 103, Ryskulov str, Almaty.

S.B. Shoshanov¹, S. S. Makhanov², L. N. Salykova³

¹ Satbayev University, Almaty, Kazakhstan;

²L.N. Gumilyov Eurasian National University, Nur-Sultan, Kazakhstan;

³Astana IT University, Nur-Sultan, Kazakhstan.

E-mail: shoshanov@gmail.com; sagat_uiuc@mail.ru; slaila2000@mail.ru

ORGANIZATION OF REFINED PRODUCTS SALES IN KAZAKHSTAN

Abstract. The article presents the main theoretical and methodological approaches to the sale of refined products. The views of scientists and economists on the sales of refined products and its categories are considered. Organization schemes of petroleum products sales on domestic and world markets, multilevel marketing system, routes of product movement (logistics chain of product movement) have been substantiated. The main documents (futures), risk insurance (hedging), planning the organization of sales of petroleum products, the impact of marketing programs on the choice of sales channel are considered. The article presents the formation of sales channels for petroleum products in vertically integrated oil companies. The tasks for timely provision of consumers with petroleum products have been clarified. The optimal choice of efficient schemes for cargo transportation of refined products, logistics schemes for their transportation and temporary storage, and rationality of transit forms of delivery of oil products to consumers are indicated. The main goals of achieving optimal sales systems for petroleum products by vertically integrated oil companies are revealed. The possibility of having special divisions for the sale and export of refined products by large oil companies is justified. The analysis of indicators of demand and supply of petrochemical products on the world markets with the author's positions on the current situation on the world oil markets in connection with the coronavirus pandemic. The analysis and assessment of production and consumption of basic petroleum products on the domestic markets of Kazakhstan is given. As a separate example, the analysis of diesel fuel consumption by regions and sectors of the national economy of Kazakhstan was carried out.

Key words. Refined products, petroleum and petrochemical products, petroleum products, sales and exports, production and consumption. the market for oil products, basic products of oil refining, an oil company.

The oil industry of any country is a branch of the national economy, the main activity of which is the extraction, processing, transportation and sale (sale) of crude oil and refined products. Oil refining products consist of various types of fuel and raw materials for subsequent chemical processing.

Oil products are sold on the domestic and world markets of oil and petroleum products. In terms of sales, the world oil market is the largest among all industry markets. The turnover of financial resources in the oil market annually averages \$ 300 billion [1]. The history of the global oil market is given in table 1.

Table 1 - The beginning of the creation of a market for oil products

The first oil company	Pennsilvania Rock Oil Co (1854 r.) - Pennsylvania state
The first oil refinery	Built in 1865 in new York city
The first oil exchange	Titusville oil exchange (1871 r.) - the city of Titusville, Pennsylvania
The first major oil and oil products marketing company	Standard Oil Co (1861) was the main seller of oil and refined products in the United States
Creation of the first group of companies for the marketing of oil products	The Organization of petroleum exported countries-OPEC group of companies was established in 1960.)
Compiled by the authors from the source [1]	

The sales of products are the most final phase, which is formed by organizing the movement of the oil product from the manufacturer to the world market.

As such, the category of «product sales» can be studied in both a narrow and broad sense. A narrow understanding of this category implies all the organizational conditions for selling products to the final buyer (consumer). The concept of «sales» should be considered in a narrow and broad sense. In a narrow sense, sales must be understood as the conditions for direct sale to the end user of products.

If we consider the category of sales in a broad sense, this is a whole set of organizational and managerial measures to organize the delivery of commercial products from the manufacturer to the buyer under the influence of various external and internal factors and in risky situations that require the necessary management. The organization of sales of products, especially those as complex as oil, should be focused on the conditions of the world oil markets, which arise under the influence of supply and demand for certain periods of time.

The product sales category has different interpretations. The approaches of authors A. Davydova and V. K. Faltsman [3] determine the sales of commodity products in terms of the turnover of raw materials before they are converted into finished products for sale and receiving new increased financial resources (money) aimed at purchasing new raw materials for its further transformation into new commodity products. Whereas D. I. Barkan considers product sales as a certain type of organization's work to promote manufactured products to industry markets [4] through the use of segmented product sales channels. The author V. N. Naumov interprets product sales as a set of measures that are carried out after the product leaves the manufacturer's territory [5].

If we approach it from a logistical point of view, then the product sales are a whole chain of product movement from the manufacturer to the consumer, which has certain links (intermediaries (dealers), distributors, exchanges, trading and commercial enterprises, warehousing, storage, transportation, etc. In other words, product marketing is a set of actions for promoting finished products from the manufacturer to the end user – the buyer.

Sales of products for each manufacturer depend on its industry affiliation. Petroleum products can refer to both industrial products as such, and are products of the mining and manufacturing industries.

The marketing of petroleum products is a whole trajectory of movement from oil production to places of consumption, where the end result is the transfer of ownership of the final product from one market participant to another, in which all ownership rights of the product are automatically transferred. As a rule, various entities participate in the movement of oil products under the terms of a contract.

The organization of sales and exports of oil products is a rather complex and multi-level system, which involves oil companies, companies that process oil and petrochemical products, companies that store and transport oil, various trade and sales organizations, financial and exchange companies, and infrastructure organizations (service, construction, logistics, etc.). Often, oil market entities have different industry orientation, different forms of ownership (public, private, quasi-public), they can be representatives of both large and small and medium-sized businesses.

In the route of product movement, trade and economic relations between the manufacturer, wholesale and retail sellers and the consumer arise over the change and transfer of ownership rights to products. The transfer of ownership rights to goods – oil products in modern oil markets is carried out through oil exchanges by drawing up various types of contracts.

When selling oil products, ownership rights are transferred with responsibilities through forward term transactions, which are paper goods, which describe all the conditions and terms of trading processes with real goods-oil products, indicating the specific location of the end user. Forward contracts are often standardized in exchange practice, which simplifies exchange turnover and fulfillment of obligations [6].

Another type of document for the sale of oil products is a futures transaction – a document for the transfer of ownership of a commodity production, but not a security. At the same time, the seller has the right to supply oil products of any quality in accordance with the conditions established by the exchange. Oil transactions can be carried out not only between producers and buyers, but also between the broker and the clearing house, with full freedom to vary prices and delivery times. However, deliveries of oil products on futures exchanges can only be allowed during certain limited periods of time [7].

Often there is insurance against price changes (hedging) in the oil markets in order to avoid possible losses as a result of higher prices for goods sold at a fixed price, but not yet purchased. Options are a type

of futures transactions where the specific content of the document is to buy or sell oil products at a pre – set price [8].

When selling oil products, the sales organization system is planned. Marketing system planning is a systematic decision – making regarding the physical movement and transfer of ownership of a product or service from the manufacturer to the consumer, including transportation, storage, and transaction execution [9]. Sales functions are performed through product distribution channels, which include all organizations or all people associated with the movement and exchange of goods and services that are participants in sales channels.

The decisions in this area strongly influence marketing programs. In many cases, choosing a sales channel is the company's most important decision. It takes a long time to build a good relationship with sales channels. When they are already there, it is quite difficult for a new company to introduce itself, and it is easier for an old one to organize the sale of suitable new products. Participants in sales channels should coordinate the planning and implementation of the strategy; if they are influential, the marketing capabilities of manufacturers significantly increase. Consumers prefer not to change the existing C and OS of purchasing goods and services [10].

The choice of sales channels also affects expenses and profits. The firm that takes on all the functions must pay for them: accordingly, it receives all the income. A firm that uses independent (external) channels can reduce the relative costs of product movement; however, it also has a lower relative profit, since the relevant sales organizations must receive their share.

In vertically integrated oil companies, the choice and formation of product distribution channels is important. At the same time, the distribution policy is a course of action of the enterprise for the development and implementation of a marketing mix - a distribution mix, and measures included in it to bring the product to the end consumer. It is aimed at effective interaction of all subjects of the marketing system to ensure the movement of a specific product prepared for sale in a certain quantity and quality, at a specific time and place.

During the period of centralized planning, the volume of direct links between plants and consumers was carefully justified, taking into account the minimization of costs for transportation and storage of petroleum products. At that time, direct connections were 10-15% in the whole country, for example, for gasoline, and 20-30% for diesel fuel.

For the effective functioning of the oil and petroleum products market in Russia, it is necessary to combine the efforts of companies in oil production, processing and marketing in order to save production costs and apply new technologies. These tasks were met by the creation of vertically integrated oil companies.

In order to provide consumers with oil products in a timely manner, it is necessary to solve a whole range of tasks. The coordinated actions of the participants in the technological chain, United within a vertically integrated structure, directly affect the extent to which the needs of the end user will be met.

Here we need to solve some of the most significant problems [11]:

- organization of production and processing of petroleum products at an oil refinery);
- organization of delivery of petroleum products to specific markets through a network of subsidiaries (at the same time, it is necessary to know the most accurate needs of each specific market for certain petroleum products);
- organization of transportation and storage of petroleum products;
- delivery of petroleum products to the final consumer through a network of wholesale trade organizations and a network of gas stations.

With vertical integration, enterprises that perform different stages of the same technological process are combined into a single chain. A specific feature of the oil refining industry is a high concentration of production. Petroleum products are consumed everywhere.

When delivering oil products from suppliers to consumers, different types of transport are used depending on their efficiency, the specific conditions of the supplied area, and the properties of the transported oil products. The most efficient pipeline is transport. The cost of transporting 1 ton of oil products through the pipeline is 3-4 times lower than the cost of railway transport. Depending on the distance, the efficiency of using rail and road transport modes changes. In particular, for a distance of up to 200 km. Road transport is more profitable, and rail transport is more profitable for long distances [12].

Thus, each of the modes of transport used has its own advantages and disadvantages. For this reason, the delivery of petroleum products in mixed traffic, most often a combination of pipeline and rail transport, has developed significantly. The role of pipeline and river transport in the transportation of petroleum products in direct communications in the country as a whole is insignificant.

Determining the optimal cargo flow patterns, the most rational combination of ways to transport petroleum products, and the further development of pipeline transport, which is a significant cost-saving factor in delivering finished products to consumers, are among the most important tasks.

Depending on the nature of product promotion from refineries to consumers, transit and warehouse forms of supply are distinguished. Each form has its advantages and disadvantages [12].

The use of a transit form of supply accelerates the delivery time of oil products to consumers. As a result, their time in the sphere of circulation is reduced. In addition, this form of supply helps to reduce the cost of circulation by reducing the cost of transportation and storage of petroleum products. However, the unjustified use of transit supply may lead to the fact that some consumers will be supplied with oil products in an unsatisfactory quantity that does not correspond to their rational consumption sizes.

In the process of developing a sales policy, the company's marketers must make and implement decisions about sales channels or routes.

An optimal sales system for a vertically integrated oil company should help achieve the following goals:

- maximize turnover and increase the company's market share;
- minimize sales costs;
- optimize the number of sales intermediaries in the chain involved in the product distribution process;
- ensure control of the marketing plan;
- create and maintain the high prestige of the selected sales channel;
- facilitate the creation of long-term relationships within the sales channel and at the same time maintain flexibility.

Planning the needs of a subsidiary company for petroleum products through a network of gas stations taken into franchising is of great importance. Currently, vertically integrated oil companies include the sale of petroleum products under a franchise agreement most often in the wholesale sales section. A vertically integrated structure of an oil company should have a special division for product sales management, which should have functions for managing all divisions whose activities are related to the organization of projects for the sale of oil products.

Today, such a large company in the Republic of Kazakhstan is JSC NC KazMunayGas. It coordinates and controls all activities of its subsidiaries (oil-producing organizations, enterprises that process petroleum products and create petrochemical products, retail outlets for wholesale and retail sales of petroleum products). The national company, as the main operator of oil refining products sales in Kazakhstan, models the domestic market of oil and petroleum products, and also provides continuous monitoring of situations on foreign oil markets. Almost completely controls the entire chain of sales and logistics of petroleum products.

The export is one of the most important sales channels for oil products both in Kazakhstan and in any country.

Currently, global petrochemical markets are significantly affected by price volatility in oil markets due to the global economic crisis of 2020 resulting from the coronavirus pandemic.

But if you think about it, you can take into account that any crisis is a step towards various structural changes in the industry. Currently, all countries are developing their own strategy for overcoming the post-crisis period, setting themselves the goal of avoiding economic catastrophe. Kazakhstan also puts in its state programs, first of all, the transition from exporting crude oil to entering world markets with refined products with high added value.

The diversification of the oil and gas industry in Kazakhstan, the expansion of oil refining and petrochemical products in recent years have been studied quite a lot by scientists-economists O. I. Yegorov, O. I. Chigarkina [13, 14], D. E. Satenova, A. B. Rakhisheva [15], U. Zh. Shalbolova, M. A. Yelpanova, A.K. Baikin [16-21].

Definitely, in the post-crisis period, the role of state regulation in the organization of sales, exports and production of refined products is very important. All measures taken by the government of the

Republic of Kazakhstan to restructure the industry, in particular, the oil and gas industry, are not temporary measures for economic stabilization. These programs for the transformation of the Kazakh economy began their work 10 -15 years ago, and now they are acting as anti-crisis measures that will determine the future of the country's national economy for many years to come.

Despite the global crises, the economy of Kazakhstan is developing, the domestic market of petroleum products is working and will continue to function in the future. In this regard, an analysis of the production of petroleum products and its consumption at the level of domestic consumption is presented.

Analysis of domestic consumption of oil products is important for the organization of export sales of oil products (figure 1).

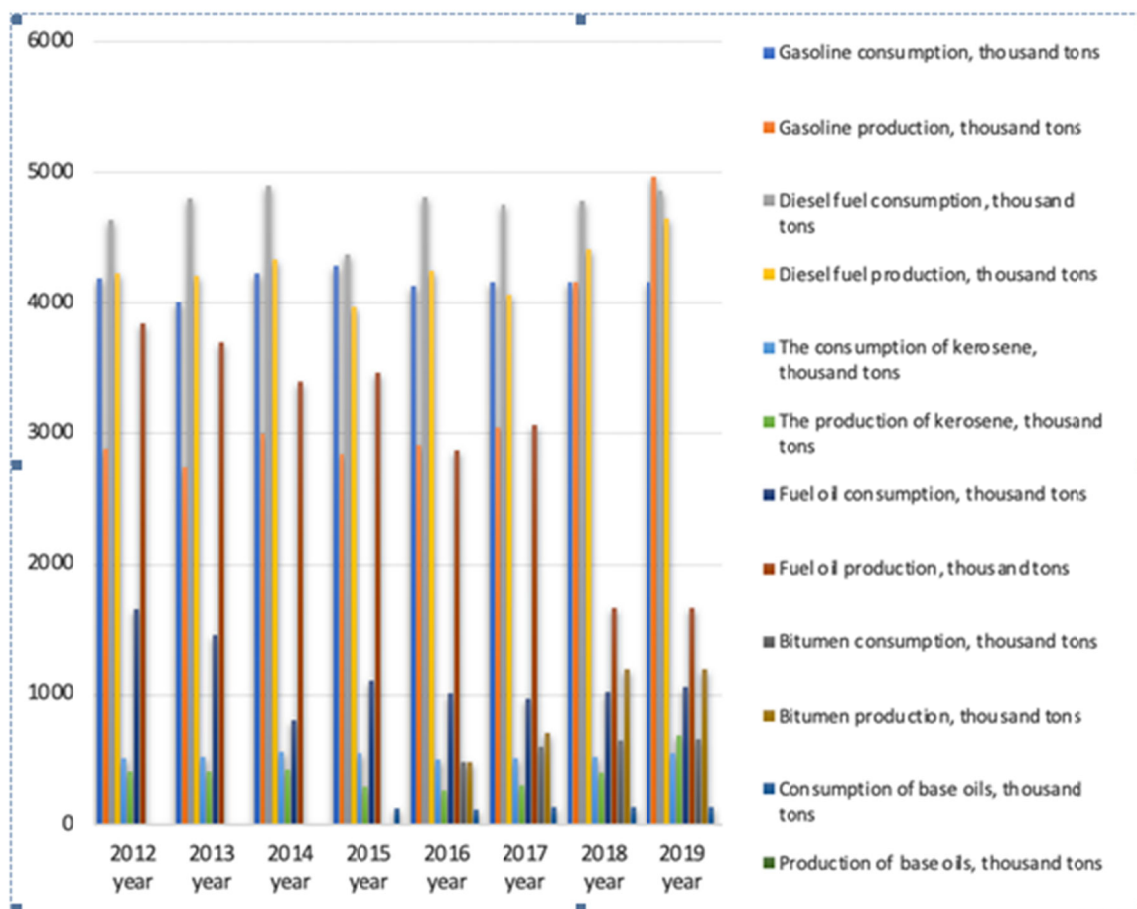


Figure 1 - Supply and demand for petroleum products in Kazakhstan, thousand tons per year

Compiled by the authors from sources [1,2]

So, in the domestic market, gasoline consumption from 2012 to 2019 did not change much. While in 2012, the production of gasoline products was 2 times lower than demand, by 2019 the growth rate was 1.7 and reached the output of 4972 tons, exceeding consumption. According to the saturation of the market with diesel fuel and kerosene during the analyzed period, Kazakhstan provided maximum domestic demand. Fuel oil production in 2012 exceeded consumption by 2 times, and therefore in 2019 the output of this oil product was reduced by 2.3 times and exceeded consumption in the Kazakh market. Bitumen production has grown 2.4 times since 2016 in 2019. Thus, Kazakhstan's refineries are able to meet the demand for petroleum products in the domestic market.

Kazakhstan provides 87% of the domestic market with its own refined products. The share of imports ranges from 2 % (for fuel oil) to 13% (for gasoline).

The sales of oil refining products in Kazakhstan are organized through a network of sales enterprises – gas stations located geographically in all regions of the country.

Analysis of the distribution of diesel fuel consumption by region in the context of economy sectors shows that mining enterprises located in the West, center and North of Kazakhstan have a significant consumption of diesel fuel per year. Thus, in Aktobe consumption is 120 thousand tons, in Atyrau it's 191.0 thousand tons, in Mangistau it's 89.4 thousand tons, in Karaganda, Kostanay, Pavlodar, West Kazakhstan, Kyzylorda regions and Shymkent it's from 40.0 to 80.0 thousand tons per year. The leaders of diesel fuel consumption among manufacturing enterprises are Karaganda (75.0 thousand tons), Pavlodar (45.0 thousand tons), West Kazakhstan (63.0 thousand tons) regions. If we consider the fuel consumption in agriculture, it is mainly a high share in the Turkestan region and the Northern regions of the country, where the production of agricultural and grain crops is developed. Since the dynamic development of construction in Kazakhstan takes place in the city of Nur-Sultan, there is the highest consumption of diesel fuel in the country (231.5 thousand tons). The same pattern is observed in Almaty, Atyrau region, Almaty and Turkestan regions.

In terms of consumption by sectors of the national economy in Kazakhstan, the construction sector consumes the most diesel fuel (1,317 thousand tons per year), transport (1,177 thousand tons per year), then mining (835 thousand tons per year), and various service sectors (570 thousand tons per year). The lowest consumption of refined products occurs in the manufacturing industry (450 thousand tons per year) and in agriculture (462 thousand tons per year). The smallest consumption of diesel fuel indicates the need for structural adjustment of the economy of Kazakhstan towards the expansion of the processing sector of the economy and the development of the agro-industrial complex.

Depending on the volume of consumption and demand for basic refined products, sales facilities are located in the regions of Kazakhstan.

С.С. Шошанов¹, С.С. Маханов², Л.Н. Салыкова³

¹Сәтбаев университеті, Алматы, Қазақстан;

Л.Н. Гумилев атындағы Еуразия ұлттық университеті, Нұр-Сұлтан, Қазақстан;

³Астана ІТ университеті, Нұр-Сұлтан, Қазақстан

ҚАЗАҚСТАНДА ӨНДЕЛГЕН МҰНАЙ ӨНІМІН ӨТКІЗУДІ ҰЙЫМДАСТЫРУ

Аннотация. Мақалада өнімді өткізу категориялары, атап айтқанда, мұнай өнімін өткізу, оны өткізудің негізгі кезеңдері қарастырылған. Ғалымдардың көзқарастары мен мұнай өңдеу өнімін өткізу ұғымының авторлық түсіндірмесі ұсынылған. Олар: мұнай өндіру компаниялары, мұнай өңдеу кәсіпорындары, көлік-логистикалық ұйымдар, сауда өткізу және биржалық компаниялар, қызмет етуші инфрақұрылым, түрлі қызмет көрсету кәсіпорындары. Өндірушіден соңғы сатып алушыға дейін мұнай өңдеу және мұнай-химия өнімін тарату үлгісі берілген. Негізгі құжаттар (фьючерс), тәуекелді сақтандыру (хеджирлеу), мұнай өнімін өткізуді ұйымдастыруды жоспарлау, маркетингтік бағдарламалардың өткізу арнасын таңдауға әсері қарастырылған. Тігінен интеграцияланған мұнай компанияларында мұнай өнімін өткізу арналарын қалыптастыру үлгілері ұсынылған.

Сондай-ақ мақалада мұнай өңдеу өнімін жүк тасымалдаудың тиімді сызбаларын таңдаудың оңтайлылығы, оларды тасымалдау мен уақытша сақтаудың логистикалық сызбалары, тұтынушыларға мұнай өнімін жеткізудің транзиттік нысандарының ұтымдылығы көрсетілген. Мақалада коронавирус пандемиясына байланысты әлемдік мұнай нарығындағы қалыптасқан жағдай бойынша авторлық ұстанымы бар әлемдік нарықтағы мұнай-химия өнімінің сұранысы мен ұсынысына талдау берілген. Қазақстанның ішкі нарығындағы негізгі мұнай өнімін өндіру мен тұтынуға талдау және бағалау келтірілген. Жеке мысал ретінде Қазақстанның халық шаруашылығының жекелеген өңірлері мен салалары бойынша дизель отынын тұтынуға талдау жүргізілді.

Түйін сөздер: өңделген мұнай өнімі, мұнай және мұнай-химия өнімі, мұнай өндіру, сату және экспорттау, өндіру және тұтыну, мұнай өнімі нарығы, өңделген негізгі мұнай өнімі, мұнай компаниялары.

С.С. Шошанов¹, С.С. Маханов², Л.Н. Салыкова³

¹Satbayev university, Алматы, Казахстан;

²Евразийский национальный университет им. Л.Н.Гумилева, Нур-Султан, Казахстан;

³Астана IT университет, Нур-Султан, Казахстан

ОРГАНИЗАЦИЯ СБЫТА ПРОДУКЦИИ НЕФТЕПЕРЕРАБОТКИ В КАЗАХСТАНЕ

Аннотация. В статье представлены основные теоретико-методологические подходы к реализации продуктов переработки. Рассмотрены взгляды ученых и экономистов на сбыт продуктов переработки и их категории. Обоснованы схемы организации сбыта нефтепродуктов на внутреннем и мировом рынках, многоуровневая система маркетинга, маршруты движения продукции (логистическая цепочка движения продукции). Рассмотрены основные документы (фьючерсы), страхование рисков (хеджирование), планирование организации продаж нефтепродуктов, влияние маркетинговых программ на выбор канала сбыта. В статье представлено формирование каналов сбыта нефтепродуктов в вертикально интегрированных нефтяных компаниях. Уточнены задачи по своевременному обеспечению потребителей нефтепродуктами. Обозначен оптимальный выбор эффективных схем грузоперевозок нефтепродуктов, логистических схем их транспортировки и временного хранения, рациональность транзитных форм доставки нефтепродуктов потребителям. Выявлены основные цели достижения оптимальных систем сбыта нефтепродуктов вертикально интегрированными нефтяными компаниями. Обоснована возможность наличия специальных подразделений по реализации и экспорту нефтепродуктов крупными нефтяными компаниями. Проведен анализ показателей спроса и предложения нефтехимической продукции на мировых рынках с позиций автора по текущей ситуации на мировых рынках нефти в связи с пандемией коронавируса. Дан анализ и оценка производства и потребления основных нефтепродуктов на внутренних рынках Казахстана. В качестве отдельного примера был проведен анализ потребления дизельного топлива по регионам и отраслям национальной экономики Казахстана.

Ключевые слова: Продукция нефтепереработки, нефтяная и нефтехимическая продукция, нефтепродукция, сбыт и экспорт, производство и потребление. Рынок нефтяной продукции, базовые продукты нефтепереработки, нефтяные компании.

Information about authors:

Shoshanov Saken Bakhytzhonovich is PhD student of Satbayev University, Almaty, Kazakhstan. E-mail: shoshanov@gmail.com, <https://orcid.org/0000-0003-2335-367X>;

Makhanov Sagat Sultanbekovich is PhD student of L.N. Gumilyov Eurasian National University, Nur-Sultan, Kazakhstan. E-mail: sagat_uiuc@mail.ru, <https://orcid.org/0000-0001-9209-8428>;

Salykova Leila Nurtleuovna is Candidate of Economic Sciences, is PhD, Professor of Astana IT University, Nur-Sultan, Kazakhstan. E-mail: slaila2000@mail.ru, <https://orcid.org/0000-0003-0766-4363>;

Petr Hajek is PhD, Professor of Central Bohemia University, Prague, Czech Republic. E-mail: haiekp@gmail.com, <https://orcid.org/0000-0003-2389-9306>

REFERENCES

[1] World oil market (2016) [Mirovoi rinoк nefti]. [Internet]. Available from <http://www.iccwbo.ru/blog/2016/mirovoy-rinok-nefti-razvitie-tseny-i-moshenniki/> (accessed September 5, 2020) (In Russian).

[2] World oil market [Mirovoi rinoк nefti]. [Internet]. Available from URL: [\(https://studfile.net/preview/7241038/page:3/\(accessed September 5, 2020\)\)](https://studfile.net/preview/7241038/page:3/(accessed%20September%205,%202020)) (In Russian).

[3] Davydova L. A., Faltsman V. K. (2003). Economics and enterprise management. Fundamentals of the German theory Betriebswirtschaftslehre, adapted for use in Russia: Textbook [Ekonomika i upravlenie predpriyatiem. Osnovi nemeckoi teorii Betriebswirtschaftslehre_ adaptirovannoi dlya primeneniya v Rossii_ Ucheb. posobie]. M.: Finance and statistics, 2003. 224p.

[4] Barkan D. I.(2010). Sales management: textbook [Upravlenie sbitom ucheb. Posobie] Manual. St. Petersburg: publishing house of st. Petersburg university, 2010. 389 P. (In Russian).

[5] Naumov V. N. (2003) Marketing of sales[Marketing Sbita].M : Eksmo, 2003. (In Russian).

[6] Gaidaenko T. A. (2015) Marketing management[Marketingovoe upravlenie]. 3rd ed., Reprint. Moscow: Eksmo, 2015. (In Russian).

[7] Economic encyclopedia[Ekonomicheskaya enciklopediya]. ed. Abalkina m.-m.: Economy, 1999. 1055 p. (In Russian).

[8] Pass C., Lowes B., Pendleton A., Chadwick L. (1998) Great dictionary of business. Russian Russian-English, English-Russian. [Bolshoi tolkovii slovar biznesa. Russko_angliiskii_ anglo_russkii]. M.: Veche publishing house, ast, 1998.688 p.

[9] Efimova S. A. (2007) Sales management or how to increase sales[upravlenie sbitom ili kak uvelichit obem prodaj]. Moscow : Alfa-press, 2007. 208 p. (In Russian).

- [10] Danenbur V. A. (2010) Fundamentals of wholesale trade. M.: Publishing house "Sirin", 2010. 244p.
- [11] Burenin A. N. (2011) Forwards, futures, options, exotic and weather derivatives [Forvardi_ fyuchersi_ opcioni_ ekzoticheskie i pogodnie proizvodnie]. Moscow: Nto im. Academician s. i. vavilov, 2011. 466 p. (In russian).
- [12] Snegovaya O. A. (2019) Features of using risk hedging tools in the Russian market[Osobennosti ispolzovaniya instrumentov hedjirovaniya riskov na rossiiskom rinke] Text : Direct // Young scientist. 2019. NO 17 (255).P. 174-176. URL: <https://moluch.ru/archive/255/58353/> (Accessed: 17.05.2020) (In russian).
- [13] Egorov O. I., Chigarkina O. A.(2015) Priorities of development of oil and gas processing in Kazakhstan[Prioriteti razvitiya neftegazopererabotki v Kazahstane] // Oil and gas 2015. 4 (88). P. 41-50. (In Russian).
- [14] Egorov O. I., Chigarkina O. A. (2014) Ways of formation of petrochemical clusters in Kazakhstan // Materials of the international scientific and practical conference "High – tech economy-a new stage of industrial and innovative development of Kazakhstan"[Puti formirovaniya neftehimicheskikh klasterov v Kazahstane // Materiali mejdunarodnoi nauchno_ prakticheskoi konferencii Naukoemkaya ekonomika – novii etap industrialno_ innovacionnogo razvitiya Kazahstana]. Almaty: IE KN MES RK, 2014. P. 362-377 (In Russian).
- [15] Satenova D.E., Rakhisheva A.B, Bolatova B.Zh., Tasbolatova A.A., Taskarin B. (2020). Economy oil and gas industry as factor of transformation of the industry. News of the National Academy of the Republic of Kazakhstan. Volume 4, Number 332 (2020), 160–163.
- [16] Shalbolova U.Zh., Razakova A.A., Elpanova M.A.(2019) Justification of the economic feasibility of investing in an oil and gas company based on diversification of production and the choice of development strategy // Bulletin of ENU. The Economic Series. No 4. 2019.
- [17] Razakova A.A., Shalbolova U.Zh., Elpanova M.A. (2019) Efficiency of the Investment Project Solution for Diversification in the Oil and Gas Industry. //Academy of Strategic Management Journal, Volume 18. Issue 6. 2019.
- [18] Shalbolova U. Zh., razakova A. A., Makhanov S. S., Shoshanov S. B.Risk (2020) Analysis in the activities of oil and gas companies in the region [Analiz riskov v deyatelnosti neftegazovih kompanii regiona]//Bulletin of the Kazakh University of Economics, Finance and international trade. No. 2, 2020. P. 133-142 (In Russian).
- [19] Baikin A., Shalbolova U.(2017). Regional diversification of entrepreneurial activity in the republic of Kazakhstan. //Espacios: Vol.38, No.46. 2017. P.35.
- [20] Baikin A. K., Shalbolova U. Zh., Taranukha Yu. V.(2018) Diversification as a factor in the development of innovative sectors. // Reports of the National Academy of Sciences of the Republic of Kazakhstan ISSN 2224-5227. №2 (318). 2018. P. 102-108.
- [21] Shalbolova U.Zh., Narmanova R.A., Tlessova E.B., Ryskulova Zh.O. Economic efficiency of cold oil bituminous mastic production. //Espacios: Vol.38, No.46. 2017.P.36.

Publication Ethics and Publication Malpractice in the journals of the National Academy of Sciences of the Republic of Kazakhstan

For information on Ethics in publishing and Ethical guidelines for journal publication see <http://www.elsevier.com/publishingethics> and <http://www.elsevier.com/journal-authors/ethics>.

Submission of an article to the National Academy of Sciences of the Republic of Kazakhstan implies that the described work has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see <http://www.elsevier.com/postingpolicy>), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. In particular, translations into English of papers already published in another language are not accepted.

No other forms of scientific misconduct are allowed, such as plagiarism, falsification, fraudulent data, incorrect interpretation of other works, incorrect citations, etc. The National Academy of Sciences of the Republic of Kazakhstan follows the Code of Conduct of the Committee on Publication Ethics (COPE), and follows the COPE Flowcharts for Resolving Cases of Suspected Misconduct (http://publicationethics.org/files/u2/New_Code.pdf). To verify originality, your article may be checked by the Cross Check originality detection service <http://www.elsevier.com/editors/plagdetect>.

The authors are obliged to participate in peer review process and be ready to provide corrections, clarifications, retractions and apologies when needed. All authors of a paper should have significantly contributed to the research.

The reviewers should provide objective judgments and should point out relevant published works which are not yet cited. Reviewed articles should be treated confidentially. The reviewers will be chosen in such a way that there is no conflict of interests with respect to the research, the authors and/or the research funders.

The editors have complete responsibility and authority to reject or accept a paper, and they will only accept a paper when reasonably certain. They will preserve anonymity of reviewers and promote publication of corrections, clarifications, retractions and apologies when needed. The acceptance of a paper automatically implies the copyright transfer to the National Academy of Sciences of the Republic of Kazakhstan.

The Editorial Board of the National Academy of Sciences of the Republic of Kazakhstan will monitor and safeguard publishing ethics.

Правила оформления статьи для публикации в журнале смотреть на сайте:

[www:nauka-nanrk.kz](http://www.nauka-nanrk.kz)

ISSN 2518-1467 (Online), ISSN 1991-3494 (Print)

<http://www.bulletin-science.kz/index.php/en/>

Редакторы *М. С. Ахметова, Д. С. Аленов, А. Ахметова*
Верстка на компьютере *А.М. Кульгинбаевой*

Подписано в печать 10.02.2021.
Формат 60x881/8. Бумага офсетная. Печать – ризограф.
20,17 п.л. Тираж 500. Заказ 1.