

MARKET RESEARCH OF THE DIESEL FUEL MARKET OF UKRAINE

МАРКЕТИНГОВЕ ДОСЛІДЖЕННЯ РИНКУ ДИЗЕЛЬНОГО ПАЛИВА УКРАЇНИ

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DOI: <https://doi.org/10.32782/infrastruct80-26>**Bebko Svitlana**

Doctor of Economic Sciences, Professor,
Professor at the Department of Marketing
and Communication Design,
Kyiv National University of Technologies
and Design

Ievseitseva Olena

Candidate of Economic Sciences,
Associate Professor,
Head of the Department of Marketing
and Communication Design,
Kyiv National University of Technologies
and Design

Matrenok Nikita

Student,
Kyiv National University of Technologies
and Design

Бєбко С.В.

Київський національний університет
технологій та дизайну

Євсейцева О.С.

Київський національний університет
технологій та дизайну

Матренюк Н.Р.

Київський національний університет
технологій та дизайну

The article conducts marketing research of the diesel fuel market in Ukraine. The main economic indicators of the diesel fuel market for the period of 2014–2023 are analyzed. Six Ukrainian oil refineries that produced diesel fuel before the war are identified, namely: Kremenchuk (PJSC Ukratnafta); Lysychansk (PJSC LINIK); Kherson (CJSC Kherson Oil Refinery); Odesa (PJSC LUKOIL-Odesa Oil Refinery); Drohobych (PJSC NPK-Galychyna); Nadvirna (PJSC Neftekhimik Prykarpattya). An in-depth analysis of their performance was carried out, in particular, production indicators and production rates were analyzed. As a result of analytical market research, the top five diesel fuel importers were identified: OKKO, WOG, Ukrafta, SOCAR, SHELL and analyzed their activities for the period 2019–2023. The trend of price changes for diesel fuel during 2014–2023 was determined, and a forecast of diesel fuel prices for 2024 was made.

Key words: market research, Ukrainian diesel fuel market.

На сучасному етапі розвитку світової економіки спостерігається висока швидкість, і створює ряд викликів і можливостей для дослідження та аналізу. Основними аспектами, які визначають потребу в нових методах і інструментах для дослідження світових ринків є об'єм та розмаїтість даних, зростання глобалізації, швидкі зміни в споживчих уподобаннях, технологічний прорив, зміна підходу до досліджень, конкурентний тиск. Тому, розробники програмного забезпечення для аналізу даних, дослідники маркетингу, аналітики і стратеги маркетингу займаються розробкою нових інструментів та методів, які допомагають компаніям аналізувати ринки та приймати ефективні рішення в умовах швидкого розвитку. В статті проведено маркетингове дослідження ринку дизельного палива України. Маркетингові дослідження спрямовані на зниження рівня невизначеності і охоплюють всі елементи маркетингового комплексу та його зовнішнє середовище. Дозволяють аналізувати ті компоненти зовнішнього середовища, які впливають на маркетинг конкретного продукту на конкретному ринку. Такі дослідження допомагають маркетологам отримувати необхідну інформацію для ефективного управління маркетинговими стратегіями та тактиками. В статті проаналізовано основні економічні показники ринку дизельного палива за період 2014–2023рр. Визначені шість українських нафтопереробних заводів, які виробляли дизельне паливо до початку війни, це: Кременчуцький (ПАТ «Укратнафта»); Лисичанський (ПРАТ «ЛИНІК»); Херсонський (ЗАТ «Херсонський НПЗ»); Одеський (ПАТ «ЛУКОЙЛ-Одеський НПЗ»); Дрогобицький (ПАТ «НПК-«Галичина»); Надвірнянський (ПАТ «Нафтохімік Прикарпаття»). Виконано глибокий аналіз ефективності їх функціонування, зокрема проаналізовані показники виробництва та темпи виробництва. В результаті аналітичних досліджень ринку визначено п'ятірку імпортерів дизельного пального: OKKO, WOG, Ukrafta, SOCAR, SHELL та проаналізовано їх діяльність за період 2019–2023р.р. При проведенні дослідження використано можливості інструментів програмного засобу MS Excel. Визначено тенденцію цінних змін на дизпаливо протягом 2014–2023 р.р., та виконано прогноз цін на дизпаливо на 2024 рік.

Ключові слова: маркетингові дослідження, ринок дизельного палива України.

Statement of the problem. An analysis of the current conditions of economic activity and marketing tools shows that successful development of domestic production of goods or services in the current economic environment largely depends on the strategic orientation of business. The basis of these processes is the strategic concept.

The challenging economic situation in the Ukrainian market and the processes of European integration require domestic companies to actively search for new effective technologies to develop and improve the competitiveness of their products. One of the key areas is the use of marketing tools. They are aimed at analyzing the market and forecasting demand, researching different market segments and achieving competitive advantages through product differentiation. This is the basis for formulating a company's development strategy.

Analysis of recent research and publications.

According to L. Karpenko, marketing research is a

system of studying the organization of production and sale of goods in order to meet consumer needs and achieve profit based on market analysis and forecasting. All marketing research is carried out in two aspects: assessment of various marketing parameters for the current period; forecasting their values in the future [1].

Amons S. E., Krasnyak O. P. note that marketing research involves:

First, accurate formulation of tasks based on the identification of problems faced by the company and the establishment of specific goals that specify the tasks of marketing research. A clear definition of the problem to be studied contributes to the correct formulation of tasks, since a full understanding of the existing problem is half the way to solving it. Based on the identified problem, research objectives are set.

Secondly, the selection of information sources is carried out to facilitate the search for the necessary information. Choosing the right sources helps to

simplify the data collection process and ensures that the right information is found [2].

Bezuhla L.S., Ilchenko T.V., Yurchenko N.I. define the essence of marketing research, which is revealed through the description of its object, purpose, goals, principles, functions and determination of the result. The object of such research is a specific marketing problem related to the micro or macro environment of an enterprise, while its object is a certain entity in the system “enterprise – market – economy”, or its specific characteristics. The purpose of marketing research is to identify problems and opportunities so that the company can take a competitive position in the market at a certain time, reduce risks and uncertainty, and increase the likelihood of success of its marketing activities [3].

Martynovych N.O., Gornik V.G., Boychenko E.B. identify the main tasks of marketing research: collection, processing and generalization of information, assessment and analysis of market conditions; assessment, analysis and forecasting of enterprise opportunities; assessment and analysis of competitors' activity, including their market share and profitability; constant measurement of quantitative parameters of the market and determination of its potential capacity; forecasting of demand, including realized demand and potentially unsatisfied demand; identification and assessment of commercial risk; information and analytical substantiation of marketing strategies and programs; information and analytical support of pricing strategies; identification of consumer preferences and opinions; evaluation of the effectiveness of advertising activities; testing of goods for compliance with market standards; analysis of the efficiency of turnover; constant monitoring of the implementation of marketing programs [4].

Objectives of the article. The purpose of this paper is to systematize theoretical and practical approaches to the study of the Ukrainian diesel fuel market. To this end, the following tasks were formulated and solved:

- disclosure of the essence of diesel fuel market research, justification of its importance and definition of tasks;
- presentation of general approaches to planning and defining strategies and methodologies for diesel fuel market research;
- analyzing the market situation and dynamics and researching various segments of the diesel fuel market.

Summary of the main research material. Diesel fuel is one of the fuels used in the engines of cars and special equipment, and it is very popular due to its economic advantages over gasoline. The differences between diesel fuel and gasoline are manifested not only in the consistency and odor, but also in physical properties.

Today's diesel fuel options differ significantly from those used before 2008. This change in the fuel composition was the result of the introduction of the Euro 5 environmental standard adopted in Europe. The main purpose of the standard is to produce the oil product using new formulas aimed at reducing the level of harmful emissions into the atmosphere.

In Ukraine, diesel fuel is produced in accordance with the DSTU 3868-99 standard. This standard requires compliance with high environmental standards, which leads to an increase in the cost of diesel fuel [5].

Diesel fuel consumption in 2014–2023 was wave-like. In 2023, there was an increase, especially for diesel fuel, as one of the most popular fuels. But in two years, gasoline lost 16% of consumption, liquefied gas – 34%, diesel – 17% compared to 2021 [6, 7]. Over the past two years, fuel supply routes have changed dramatically. After the outbreak of a full-scale war with russia, fuel is supplied from the south (Romania, Bulgaria, Greece) and from the Polish border (fuel from Poland and the Baltic Sea countries). Until 2022, Ukraine imported 70% of its diesel fuel from russia and Belarus.

The Ukrainian fuel market is characterized by insufficient saturation with domestic petroleum products, as well as a lack of systematic monitoring of product quality and safety. In recent years, the problem of import dependence in the diesel fuel market has remained the most pressing. Ukrainian fuel markets are currently not sufficiently saturated with domestically produced oil products. At the moment, the oil refining capacities of domestic producers are represented only by PJSC Ukratnafta (Kremenchuk Oil Refinery) [8].

To assess market conditions, it is important to evaluate the dynamics of the diesel fuel market over several years. Let's look at the trend of price changes for diesel fuel (Fig. 1). The statistics are presented as of the end of December each year.

In 2014–2015, fluctuations in diesel fuel prices led to a decline in household incomes, which prompted a shift from expensive segments to those in the middle price category. In 2016–2021, there was a gradual increase in diesel prices, despite a slight decline in 2019–2020, which was mainly due to a decrease in population mobility due to the COVID-19 pandemic. In 2021, diesel prices began to rise again, and as a result of the outbreak of a full-scale war with russia, they increased 1.5 times. Today, diesel prices are gradually normalizing, but remain higher than before the war.

The table below presents the main economic indicators of the diesel fuel market for the period 2014–2023 (Table 1).

The Ukrainian diesel market has undergone significant changes over the past two years. We will segment this market starting from 2018 to 2023,

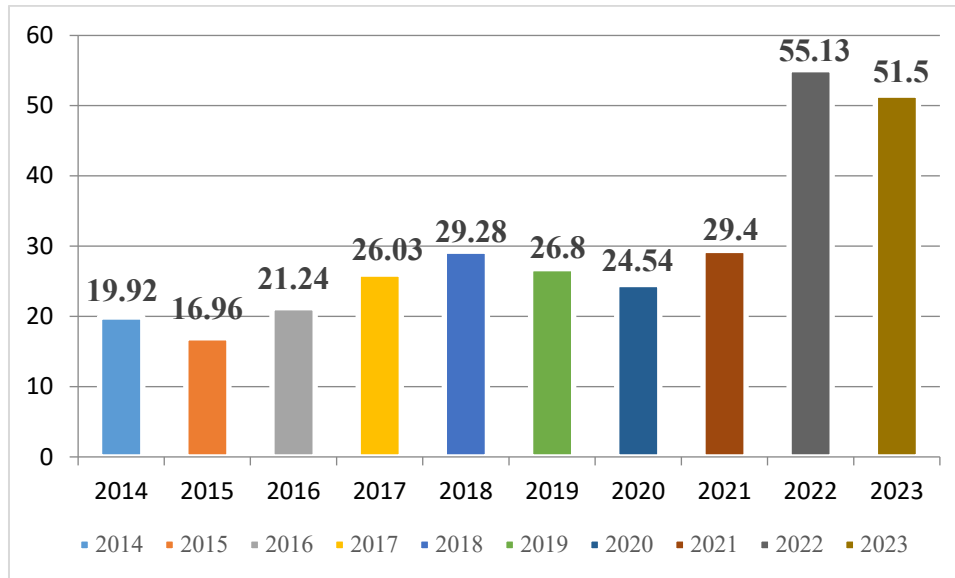


Figure 1. Trend of price changes for diesel fuel in 2014–2023 (UAH/l)

Source: developed by the authors based on [9]

Table 1

Key economic indicators of the diesel fuel market for the period 2014–2023

Indicators	Years									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Production, thousand tons	639	832	929	680	578	638	671	711	598	564
Exports, thousand tons	-68	-76	-92	-193	-214	-264	-176	-168	-130	-136
Imports, thousand tons	4856	4775	5125	5422	5594	6557	6622	6730	6978	7761
Market capacity, thousand tons	5427	5531	5962	5909	5958	6931	7117	7273	7446	8189
Production growth rate, %.	–	30,20	11,66	-26,80	-15,0	-7,27	5,17	5,96	-15,8	-5,69
Export growth rate, %.	–	-11,7	21,05	109,78	10,88	23,36	-33,3	-4,55	-22,6	4,62
Imports growth rate, %.	–	-1,67	7,33	5,80	3,17	17,21	0,99	1,63	3,68	11,22

Source: developed by the authors based on [9; 10]

considering refineries (production and export) and major gas stations (import) separately.

Prior to the outbreak of full-scale war in February 2022, there were six oil refineries in Ukraine that produced diesel fuel: Kremenchuk (PJSC Ukrtatnafta); Lysychansk (PJSC LINIK); Kherson (CJSC Kherson Oil Refinery); Odesa (PJSC LUKOIL-Odesa Oil Refinery); Drohobych (PJSC NPK-Galicia); Nadvirna (PJSC Neftekhimik Prykarpattya).

Let's analyze the production and export of diesel fuel by oil refineries in 2019–2023. The data are shown in Table 2.

Analyzing the activities of oil refineries on the basis of Table 2, it can be concluded that the full-scale war with Russia has affected the operation of oil refineries, namely

1. PJSC Ukrtatnafta has been experiencing a decline in diesel fuel production for five years. Namely,

in 2019 – 118 thousand tons, in 2021 – 112 thousand tons, and in 2023 – 50 thousand tons. Accordingly, the growth rate decreased during this period.

2. PJSC LINIK has been experiencing a decline in diesel fuel production for three years. Thus, in 2019 – 135 thousand tons, in 2021 – 99 thousand tons. The production growth rate also decreased from 2.97% (2019) to -22.05% (2021). With the outbreak of the war with Russia in 2022, Lysychansk was occupied, and the oil refinery was destroyed and production stopped.

3. At CJSC Kherson Oil Refinery, diesel fuel production has been growing for 3 years. Thus, in 2019 (91 thousand tons), 2021 (125 thousand tons). Accordingly, the production growth rate over 3 years increased from 3.71% (2019) to 12.61% (2021). At the end of February 2022, the city was occupied and production was stopped. In 2023, after the liberation of the city of Kherson, production at CJSC Kherson

Table 2

Analysis of oil refineries for 2019–2023

Indicators	Years				
	2019 p.	2020 p.	2021 p.	2022 p.	2023 p.
PJSC Ukratnafta					
Production, thousand tons	118	109	112	88	55
Production growth rate, %	1.14	-7.63	2.75	-21.43	-37.50
PJSC "LINIK"					
Production, thousand tons	135	127	99	0	0
Production growth rate, %	2.27	-5.93	-22.05	–	–
CJSC Kherson Oil Refinery					
Production, thousand tons	91	111	125	0	25
Production growth rate, %	3.71	21.98	12.61	–	–
PJSC "LUKOIL-Odessey Oil Refinery"					
Production, thousand tons	147	165	198	201	203
Production growth rate, %	7.21	12.24	20.00	1.52	1.00
PJSC NPK-Galicia					
Production, thousand tons	83	89	102	183	158
Production growth rate, %	1.12	7.23	14.61	79.41	-13.66
PJSC Neftekhimik Prykarpattya					
Production, thousand tons	64	70	75	126	123
Production growth rate, %	0.32	9.38	7.14	68.00	-2.38

Source: developed by the authors based on [11–14]

Oil Refinery began to be restored in 2023, with fuel production amounting to 25 thousand tons.

4. At PJSC "LUKOIL-Odes Oil Refinery" despite all the cataclysms of COVID-19 and the war, the production of diesel fuel at this refinery has been steadily increasing, namely 147 thousand tons in 2019, 198 thousand tons in 2021, and 203 thousand tons in 2023. Production growth rates have a positive trend.

5. In the period from 2019 to 2022, PJSC NPK-Halychyna has been experiencing a steady increase in diesel fuel production. In 2019 – 83 thousand tons, in 2022 – 183 thousand tons. In 2023, compared to 2022, diesel production decreased to 158 thousand tons. The production growth rate fell by 13.66%.

6. At PJSC Naftochimik Prykarpattya, diesel fuel production increased from 2019 to 2022, namely: 2019 – 64 thousand tons, 2021 – 75 thousand tons and 2022 – 126 thousand tons. In 2023, there is a decrease in diesel production to 123 thousand tons. The production growth rate fell by 2.38%.

An analysis of the efficiency of oil refineries is shown in Figure 2.

Figure 3 shows the largest importers of diesel fuel in Ukraine in 2023.

According to the Ukrainian Business Award and LOOQME, the top five diesel fuel importers are: OKKO, WOG, Ukrnafta, SOCAR, SHELL.

Predicting the future of the diesel market in Ukraine is difficult due to a number of factors that affect it, as well as the global economy in general. However, thanks to Microsoft Excel, we are able to make a rough price forecast for 2024.

Overall, the future of the diesel market in Ukraine is uncertain. It will be influenced by a number of factors, as well as the global economy in general. It is important to follow the latest developments and trends to better understand the market's prospects.

Conclusions. Thus, marketing research is a critical stage in the development of any company or business, as it provides the necessary information for strategic decision-making.

To successfully conduct marketing research, one needs to use a variety of methods, such as questionnaires, observations, focus groups, etc., depending on the specific goals and objects of the study.

An important stage of marketing research is market analysis, which allows us to understand the needs, preferences and behavior of consumers, the competitive situation and opportunities for development.

The results of market research should be used to develop strategic plans and tactical actions aimed at achieving competitive advantage and increasing profitability.

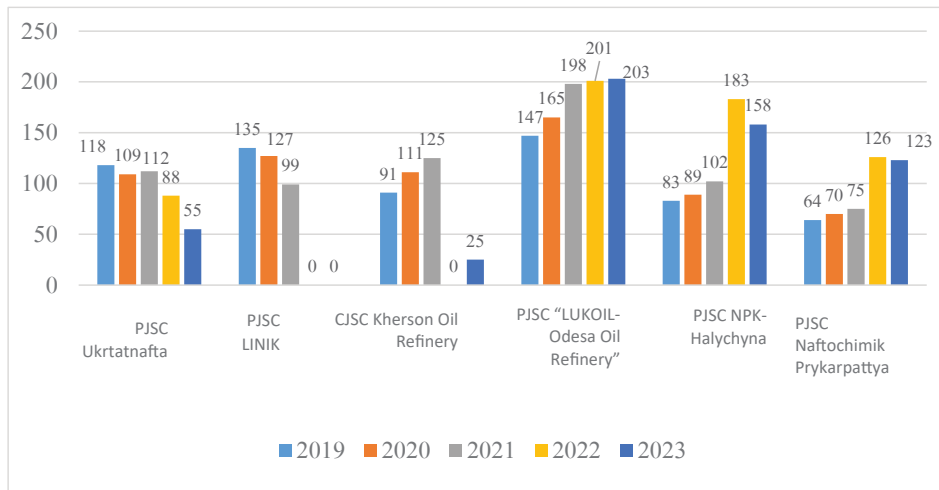


Fig. 2. Analysis of oil refineries (thousand tons)

Source: developed by the authors based on [9; 10]

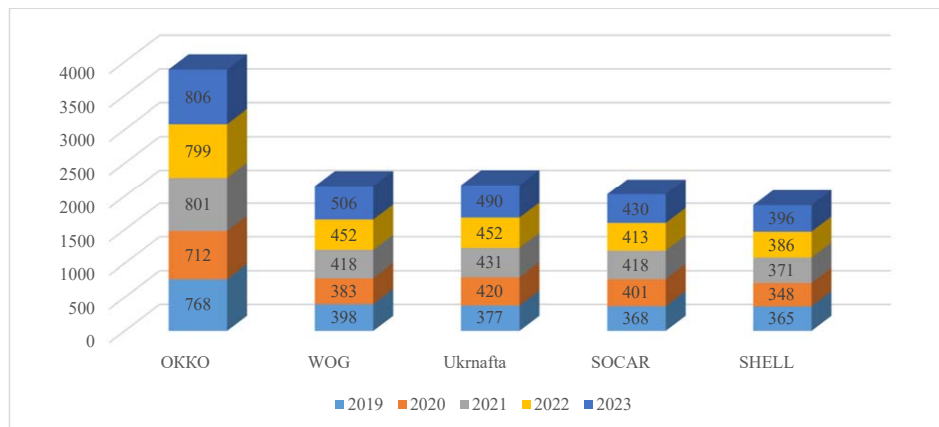


Fig. 3: Largest importers of diesel fuel in 2023 (thousand tons)

Source: developed by the authors based on [15].

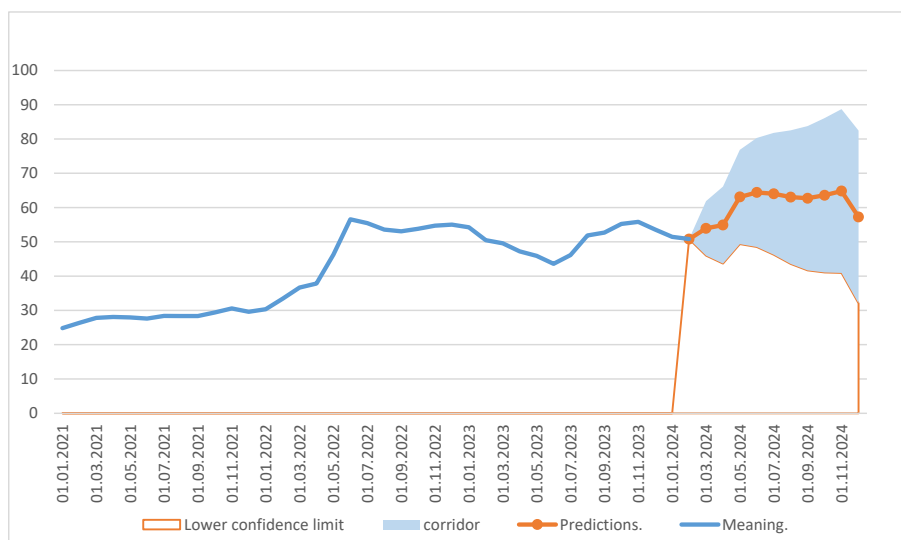


Fig. 4 Graphical representation of the results of the forecast for diesel fuel prices in 2024

Source: developed by the authors based on [16]

The diesel fuel market in Ukraine is a significant and important segment of the energy market, with a significant consumption volume. The practical results of the study show an increase in diesel fuel consumption from 2014 to 2023, which indicates an increase in demand for this type of fuel in the country.

The analysis of exports, imports and global trends in the diesel fuel market shows the importance of the foreign market for Ukraine and the opportunities of developing international partnerships in this segment.

The study of diesel fuel market segments allows us to identify key consumer groups and develop targeted marketing strategies for each of them.

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