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JOURNAL	International Journal of Innovative Technologies in Economy
p-ISSN	2412-8368
e-ISSN	2414-1305
PUBLISHER	RS Global Sp. z O.O., Poland
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ARTICLE TITLE	FACTORS OF CHANGES IN DEMAND FOR THE USE OF FREIGHT WAGONS JSC “UKRZALIZNYTSYA”
AUTHOR(S)	Malitskiy Vitalij, Reznik Nadiia
ARTICLE INFO	Malitskiy Vitalij, Reznik Nadiia. (2023) Factors of Changes in Demand for the Use of Freight Wagons JSC “Ukrzaliznytsya”. <i>International Journal of Innovative Technologies in Economy</i> . 4(44). doi: 10.31435/rsglobal_ijite/30122023/8079
DOI	https://doi.org/10.31435/rsglobal_ijite/30122023/8079
RECEIVED	21 October 2023
ACCEPTED	27 November 2023
PUBLISHED	30 November 2023
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FACTORS OF CHANGES IN DEMAND FOR THE USE OF FREIGHT WAGONS JSC “UKRZALIZNYTSYA”

Malitskiy Vitalij

National Transport University, Postgraduate Student department of management,
Ukraine, Kyiv

ORCID ID: 0000-0001-9210-5165

Reznik Nadiia

Doctor of Economics, Professor, Professor of the Department of Management named after Professor
Yosyp S. Zavadsky, National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine

ORCID ID: 0000-0001-9588-5929

DOI: https://doi.org/10.31435/rsglobal_ijite/30122023/8079

ARTICLE INFO

Received 21 October 2023

Accepted 27 November 2023

Published 30 November 2023

KEYWORDS

Demand, Freight
Transportation, Railway
Transport, Railway
Company, Use of Freight
Cars, Income,
Competitiveness.

ABSTRACT

Providing a freight car for use is an integral part of the service of organizing the transportation of goods by railway transport. More than 600 companies offer wagons for use on the rail freight market. The largest owner of freight cars is JSC “Ukrzaliznytsya”. The company currently owns more than half of the freight wagons that are being loaded. At the same time, customers order no more than 30% [1]. This shows that the demand for the company's freight wagons is currently low. This leads to loss of income. This situation is due to the influence of various external and internal factors. Their determination and analysis will allow to change the situation with the demand for the company's freight wagons.

Citation: Malitskiy Vitalij, Reznik Nadiia. (2023) Factors of Changes in Demand for the Use of Freight Wagons JSC “Ukrzaliznytsya”. *International Journal of Innovative Technologies in Economy*. 4(44). doi: 10.31435/rsglobal_ijite/30122023/8079

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Introduction.

Providing a freight car for use is an integral part of the service of organizing the transportation of goods by railway transport. More than 600 companies offer wagons for use on the rail freight market. The largest owner of freight cars is JSC “Ukrzaliznytsya”. The company currently owns more than half of the freight wagons that are being loaded. At the same time, customers order no more than 30% [1]. This shows that the demand for the company's freight wagons is currently low. This leads to loss of income. This situation is due to the influence of various external and internal factors. Their determination and analysis will allow to change the situation with the demand for the company's freight wagons.

Research purpose.

Determination of factors influencing the demand for the use of freight cars of JSC “Ukrzaliznytsya”. Preparation of recommendations for increasing the level of the company's competitiveness.

Research materials and methods.

Analysis and synthesis of statistical and analytical information. Customer survey. Systematization of received information.

Results.

Transportation of goods by rail transport is carried out under the terms of the Agreement [2]. At the same time, the client independently chooses whose freight cars he will use. JSC “Ukrzaliznytsya” is the largest owner of freight cars offered to customers [3]. However, the demand for the company's freight wagons is low [4].

To determine the factors affecting demand and reducing the company's income, we will analyze the use of grain wagons. The choice of this type of freight car for analysis is due to the fact that JSC “Ukrzaliznytsya” currently owns about 40% of grain wagons. The company is the largest owner of freight cars of this type. It is worth noting that in real transportation, not the entire composition of wagons of grain carriers is involved. Some of them are out of order or undergoing repairs. Therefore, in the future, we will use data on grain transport wagons that are actually involved in transportation.

Let's consider the general situation with the demand for grain wagons of all types of ownership.

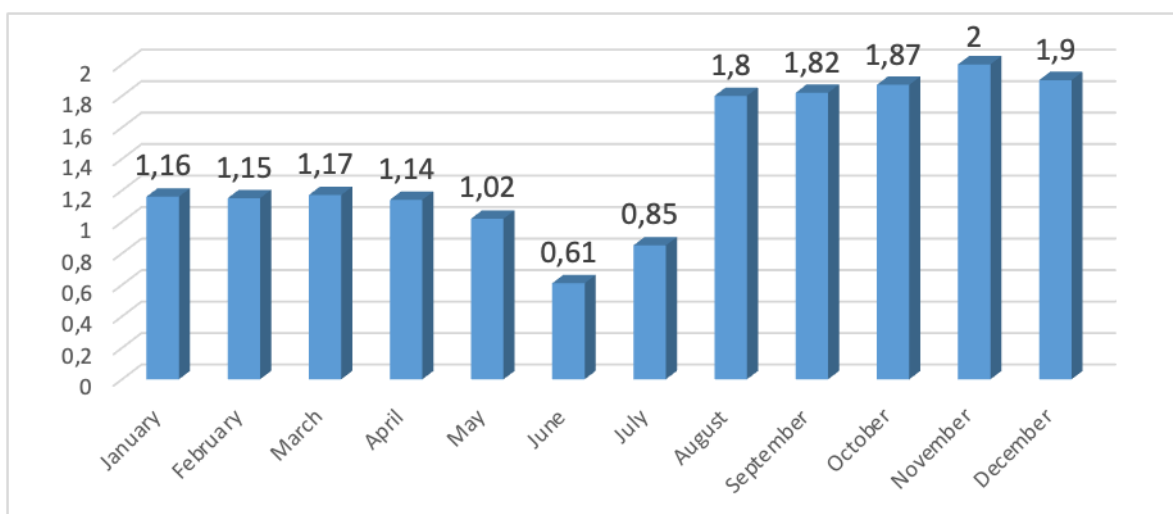


Fig. 1. Average daily load of grain wagons in 2021, thousands of wagons. Source: analytical report of JSC “Ukrzaliznytsya”.

As can be seen from fig. 1 the use of wagons of grain carriers takes place throughout the entire calendar year. The general drop in demand for this type of freight cars occurs from May to July. This is due to the seasonal drop in the volume of cargo transportation of this type [5]. The peak load period is recorded during August - December.

Next, we will highlight in the total load the wagons of grain carriers owned by JSC “Ukrzaliznytsya” [6].

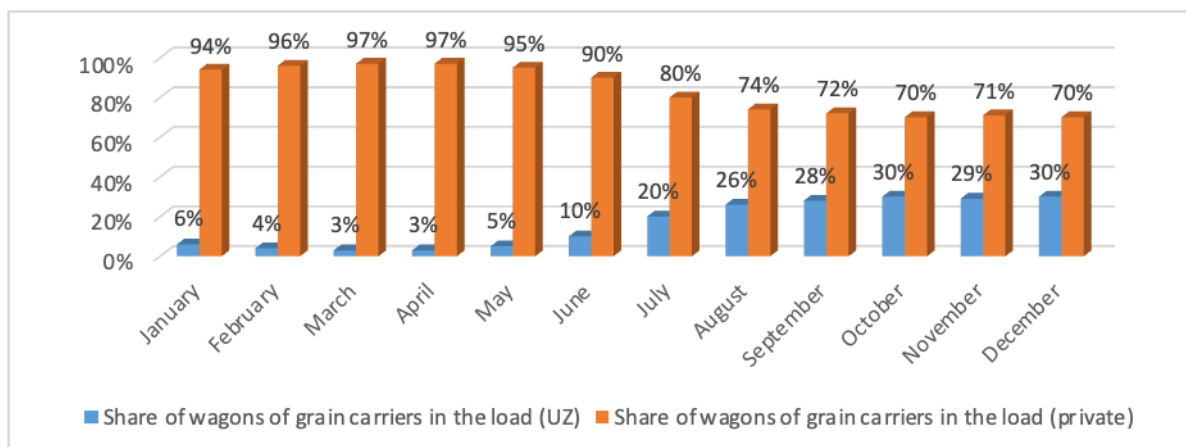


Fig. 2. Shares of wagons of grain carriers of Ukrzaliznytsya JSC and other owners in the load, 2021. Source: data from JSC “Ukrzaliznytsya”.

From fig. 2, it follows that for the transportation of grain cargoes, clients mostly use private wagons of grain carriers. The demand for freight cars of JSC “Ukrzaliznytsya” during January - June does not exceed 10% of the total load. Demand increases during peak load periods. This is due to the insufficient number of freight cars of this type owned by private owners.

Now let's highlight the number of freight wagons of Ukrzaliznytsya JSC grain carriers that are used and idle [6].

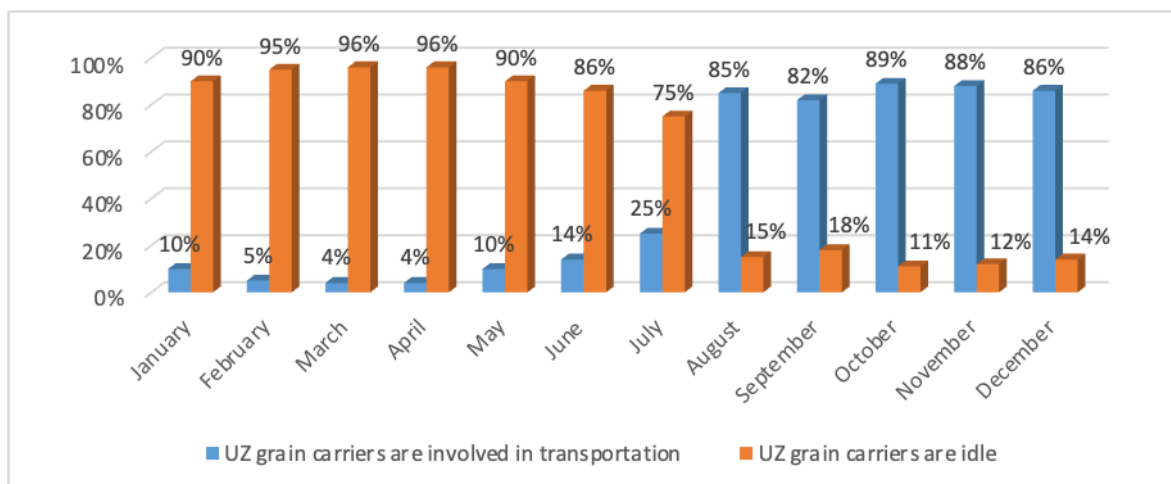


Fig. 3. Number of cargo wagons of Ukrzaliznytsya JSC grain carriers in use and idle, 2021. Source: data from JSC “Ukrzaliznytsya”.

As can be seen from fig. 3 in January - June, about 90% of the wagons of grain carriers owned by JSC “Ukrzaliznytsya” are not used. At the same time, in the period from August to December, when the volume of use of grain wagons almost doubles, from 11 to 18% of such wagons remain unused in transportation. That is, even with increased demand for this type of freight wagons, clients prefer cooperation with private wagon owners.

In order to identify the factors that lead to such a situation, we conducted an informal telephone survey of clients [7].

The survey period is September 2022. The survey covered 135 companies that ordered grain wagons for the transportation of goods by rail. Clients were asked the following questions:

1. Do you order for use wagons of grain carriers owned by JSC “Ukrzaliznytsya”? If not, why?
2. Under what conditions will you order freight wagons of grain carriers owned by JSC “Ukrzaliznytsya”?

The key theses of the information received from clients were recorded, analyzed and systematized [7]. Based on the results of processing the received information, 5 main factors were identified.

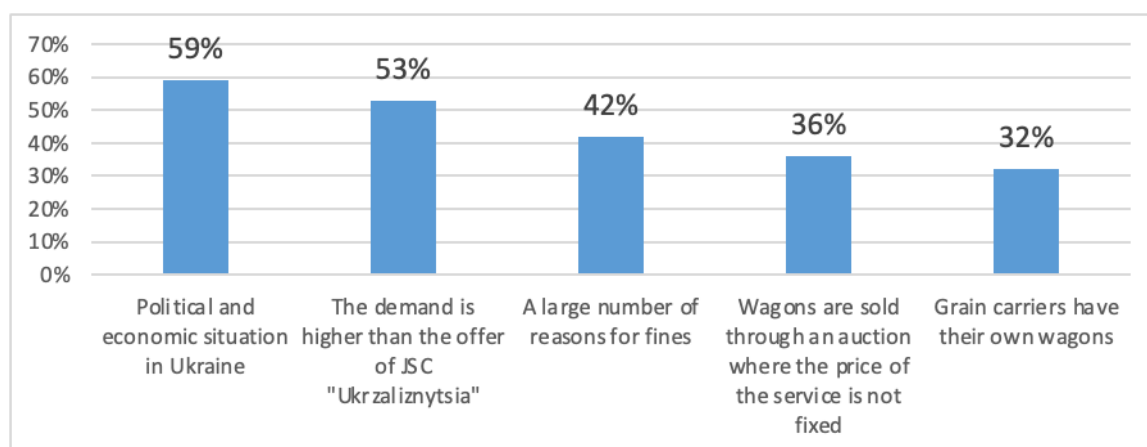


Fig. 4. Factors affecting the order of grain transport wagons owned by JSC “Ukrzaliznytsya”. Source: author's own research.

Among those shown in fig. 4 results stand out:

External factors:

- political and economic situation in Ukraine;
- availability of own wagons of grain carriers.

Internal factors:

- the offer of JSC “Ukrzaliznytsya” does not cover the client's demand;
- clients note an excessive number of reasons for fines;
- grain transport wagons are sold through an auction, where the price of the service is not fixed, which does not give the company the opportunity to forecast its own costs.

The company cannot reduce the influence of external factors.

As for internal factors, reducing their impact is possible through the adoption of appropriate management decisions by the management of the railway company. This is implemented by making changes to the Agreement [2]. In addition, it is advisable to introduce the redistribution of wagons of grain carriers by region during periods of increased demand. The situation will also be improved by changing approaches to the implementation of the service of using freight wagons of grain carriers through auctions.

Conclusions.

The demand for freight cars owned by JSC “Ukrzaliznytsya” depends on the level of service offered by the company. The company has a reserve of wagons that can be offered to customers. The number of customers who do not have their own freight cars is sufficient to increase the share of cars owned by JSC “Ukrzaliznytsya” in the total order.

Private companies are more flexible in the process of making managerial decisions. Their level of competitiveness is higher. JSC “Ukrzaliznytsya” does not fully focus on the needs of customers when offering the service of using a freight car.

REFERENCES

1. Bakalinsky O.V., Malitskyi V.V. Analysis of the action of market factors that cause the latest trends in the market for the use of freight cars. Scientific journal «Roads and road construction» Issue 112 (2022). page 401. DOI: 10.33744/0365-8171-2022-112-401-414.
2. Agreement on the provision of services for the organization of cargo transportation by rail transport. Electronic resource. link: <https://uz-cargo.com/contractcarriage.html>.
3. Green book «Unbundling of JSC “Ukrzaliznytsya”: liberalization of the freight wagon operation mar». Electronic resource. link: <https://regulation.gov.ua/book/178-zelena- kniga-anbandling-at-ukrzaliznica-liberalizacia-rinku-operuvanna-vantaznimi-vagonami>.
4. Bakalinsky O.V., Malitskyi V.V. Updating the set of pricing principles as a result of the deregulation of prices for the use of freight rail cars. Dnipro National University of Railway Transport named after Academician V. Lazaryan. Review of transport economics and management Issue 4 (20), Dnipro, p. 115. <https://doi.org/10.15802/rtem2020/212796>.
5. Reznik N., Dyvnych O., Vlasyuk V. Modern features of agricultural logistics. Actual problems of innovative economy. 2021. No. 2, pp. 55-59. <http://apie.org.ua/uk/publications-uk/2021-2/> DOI: <https://doi.org/10.36887/2524-0455-2021-2-10>.
6. Share of load and percentage of disposal of own wagons of the Carrier JSC “Ukrzaliznytsya” in 2021. Electronic resource. link: https://www.uz.gov.ua/cargo_transportation/tariff_conditions/stavky/share/.
7. Tom J. Brown, Tracy A. Suter, Gilbert A. Churchill, Basic Marketing Research. South-Western Cengage Learning, 2010, 594 pages, ISBN:1439041407, 9781439041406.
8. Reznik N.P.: Logistics: heading guide /N.P. Reznik/ National University of Life and Environmental Sciences of Ukraine. Kiev, p 146 (2021).
9. Reznik N., Hrechaniuk L.: Justification of measures to improve the efficiency of logistics system management. AIP Conf. Proc. 2413, 040002 (2022). <https://doi.org/10.1063/5.0090406>.
10. Reznik N., Hrechaniuk L., Zahorodnia A.: Analysis of the logistics component of the economic security system of enterprises. Int. J. Innovative Technol. Econ. 4(36) (2021). https://doi.org/10.31435/rsglobal_ijite/30122021/7739.
11. Reznik, N., Boshtan, A.: Features of execution of customs control in Ukraine during the war. Young Sci. 11(111), 103–107 (2022). <https://doi.org/10.32839/2304-5809/2022-11-111-22>.