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PROBLEMS IN THE CONTAINER INDUSTRY DURING TRANSPORTATION IN EXPORT TRAFFIC²

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Abstract: This article analyzes the global changes in the course of restructuring the business processes of companies operating in the transport sector. Except that the route has changed: finding new partners, building new supply chains and trying to shorten the delivery time of goods. There are several problems associated with the increase in container flows in Kazakhstan. In modern conditions, container flows of export links are analyzed.

Keywords: Container flows, routes, forwarders, transport and logistics complex,

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INTRODUCTION

Rail transport has always been full of problems. Container shipping does not postpone these problems. The year 2022 has become a year of trials not only for the logistics industry of Kazakhstan, but also for the transport structure of the entire continent (Ivanov, D. V., Smagulov, Zh. T., 2022).

Since 2020, huge logistical challenges have been noted: This epidemic is leading to a breakdown of logistics links around the world. Huge queues and difficulties in transporting containers along the border with China create many problems for both Kazakh carriers and forwarders, but this is not the worst thing that can happen in the market. Serious difficulties began in February and March 2022, when restrictions affected normal relations with Europe.

Kazakhstan, located in the center of the region, is becoming a Eurasian transport and logistics center, bringing together freight forwarders and customers from different countries (Uskenbaev, K., 2022).

EXPOSITION

Thus, the Western European Transport Corridor of Western China goes to the ports of Aktau and Kurik in Kazakhstan, from where goods are sent to European countries via Azerbaijan, Georgia, and Turkiye, (TRACECA, 2016). Thanks to Kazakhstan, trade between the countries of Central Asia and the European Union has not stopped.

Rail transport is linked to freight transport due to the high variability of tariffs and capacity constraints of alternative modes of transport, which will accelerate the development of rail transport during the pandemic.

The railway has assumed the strategic role of a "viaduct" between Europe and Asia, providing shippers with everything they need: regular transportation, short-term and fixed tariffs.

Land transport from Kazakhstan to Russia and Belarus from China is three and a half times cheaper than sea transport, with a difference of two times at the beginning of the year, and by October 2020, land routes will completely rise in price.

In particular, the railways of the The Eurasian Economic Union (EAEU) countries - Belarus, Kazakhstan and Russia - are given priority here as the longest and most central route connecting Europe and Asia, with 1520 seats.

Transit is an area of intense competition. It is difficult for railways to compete on prices for container transportation compared to sea routes, so the speed of cargo movement is the biggest advantage.

The average speed of International Transport Corridor (ITK) East-west transit tanks on the territory of Russia is 1000 km/day, in Kazakhstan - 957 km/day, in Belarus - 907 km/day, in Mongolia - 744 km/day.

Increasing the daily speed of container trains will be a key factor in increasing the competitiveness of rail transport between Asia and Europe in the coming years.

This situation is characterized by a sharp increase in the number of containers transported through the EAEU.

The unprecedented growth rates of transit traffic require a significant acceleration of the development of railway infrastructure and the disclosure of the potential of digital logistics. Compared to 2015, transit traffic within the European Economic Area increased fivefold. This highlights the connecting role played by Europe and the countries of the Asia-Pacific region. Russia, as the largest economic entity, almost completely determines the structure of foreign trade flows (Analytical report, 2021).

At the same time, the volume of traffic is increasing significantly, and not only because of transit cargo. Thus, according to Kaztrade, in the first two months of 2022, revenues from trade with the European Union will increase by 70,9% compared to the same period in 2021, and with China - by 25,1%.

The average gap between container and export shipments is also increasing. Its length was 1059 km and increased by 11 km or 1%, which is due to an increase in container traffic with "copper cargo" on the Aktoga-Din-Nurpeisovo section, an increase in empty container traffic on the Kustanai-Lokot section and an increase in traffic with "white cargo". And yellow phosphorus is absorbed by

manganese.

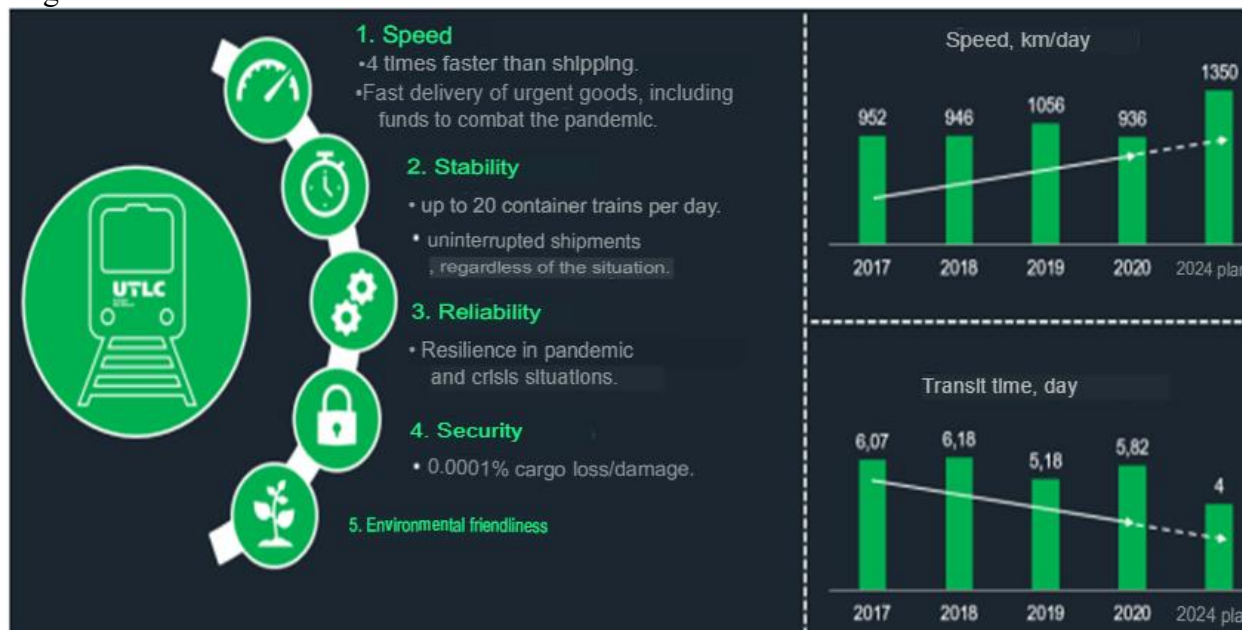


Fig. 1. Advantages of Eurasian container transit, (Analytical report, 2021)

In 2022, exports will increase from year to year:

2964 pieces of iron alloys or 12% from Aksu and Genishke stations via Dostyk station to Japan and European countries via Avtovo, Luzhskaya, Churakino, Novorossiysk, Iletsky;

Of the defense and new dental stations, 1139 units, or 47%, will be shipped to Vietnam, China, Turkey and Spain;

883 units of copper, or 6 times more, from Aktogay station to the destination in the UK;

White, yellow phosphorus - 635 units, or 29% of the total phosphate production in Europe and the United States;

In October, wheat and garlic are shipped to China and Turkiye from the stations of Wattier, Atbasar, Kostanay, Novoishimskaya 19;

344 pieces for zinc or 17% of the safety of the Novo-Ostyakamenogorsk station and the destination - Vietnam, Turkiye and China.

At the same time, the load decreased by 184 units, or 39%, as their transportation decreased;

- The oxygen salt content is 58 units, or 53%.

The analysis of container transportation of export messages is presented in Table 1 (JSC, 2022).

The number of free high-capacity container shipments for export shipments increased by 11960 units in 2022, which is 42% more than in the same period last year.

Financing the repair and construction of new roads is difficult, the infrastructure of the main network of the republic is insufficiently developed.

Among the problems in this sector are insufficient capacity and quality of infrastructure, old rolling stock and low digitization of the market. But they will be solved, infrastructure projects will be implemented, government support for the industry will be implemented, open digital services, exchanges, aggregators will be presented, which will help automate key logistics processes of enterprises.

According to the Ministry of Foreign Affairs of the Republic of Kazakhstan, the problem in this area is the lack of infrastructure preparation for more transit this year. In this regard, the increase in passenger traffic on the route between China, Russia, Belarus and China puts additional pressure on the infrastructure and approaches to the Dostyk border crossing, which has been operating at the limit of its capabilities in recent years (Nikitin, N.A., 2019).

The Ministry of Foreign Affairs of the Republic of Kazakhstan reported that the share of overloaded territories exceeded 16% during the period of operation.

In the first quarter of 2023, the volume of transit cargo transported through Kazakhstan will increase by 35 percent compared to the same indicator of 7.2 and reach 2022 million tons. With an

increase in container traffic by 19% and it reached 313 thousand TEU.

Table 1. Dynamics of container transportation by nomenclature in export traffic, units.

Nomenclature	2017	2018	2019	2021/2020		2022/2021	
				+/-	%	+/-	%
Large-capacity containers (CPC)							
Ferroalloys	17891	24277	27241	6386	136	2964	112
Light metals and their alloys	2589	6690	8322	4101	258	1632	124
Alkali metals, alkaline earth metals and nonmetals	1569	2165	2800	596	138	635	129
Energy gases	731	0		-731	0		
Household items	601	468	284	-133	78	-184	61
Salts of oxygen acids	162	110	52	-52	68	-58	47
Tobacco and tobacco products	163	143	161	-20	88	18	113
Inorganic chemistry products	98	98	133	0	100	35	136
Ferrous metal products	80	46	92	-34	58	6	113
Wheat		216	2705			2489	12321
Empty containers		12947	28794	40754	322	11960	142
Other cargo	1416	1382	2060	-34	98	678	149
Ferroalloys	38247	64389	84564	26142	138	20175	131
Medium-tonnage containers (SCT)							
Empty containers	140	179	293	39	128	114	164
Total STK	140	179	293	39	128	114	164
in total	38387	64568	84857	26181	168	20289	131

JSC NC KTZ is constantly striving to increase cargo transportation and develop container transportation. The company's measures to increase the transit potential of Kazakhstan will allow Kazakhstan to reach a historical maximum of 23,2 million tons in 2022 and bring the record number of container shipments to 1129 thousand.

The branches of large shipping companies operating in the export transportation sector in Kazakhstan consist of (Table 2).

Table 2. Forwarders of containers transported in transit through the territory of Kazakhstan

№	The name of the forwarding companies	Transportation directions
1	JSC "OTLK"	Loaded: machinery and equipment from China to Europe
2	JSC "KTZ Express"	Loaded: China-Europe container trains
3	JSC "Kedentrans service"	Empty: container trains Europe-China
4	LLP "System. LTD»	Loaded: transportation of machinery and equipment for agriculture from Korea to Uzbekistan, cotton yarns from Uzbekistan to China, other goods
5	Atasu Logistics LLP	Empty: return of empty CPC from Uzbekistan to Korea
6	Seojoong Kazakhstan LLP	Transportation of food and other goods from China to Uzbekistan

Results and discussions.

Problems in the container industry of Kazakhstan in the transportation of goods in an export message cover a number of aspects related to infrastructure, logistics, regulation and geopolitical

factors (Abdualiyev, M. K., 2021). The main ones are shown in fig.2.

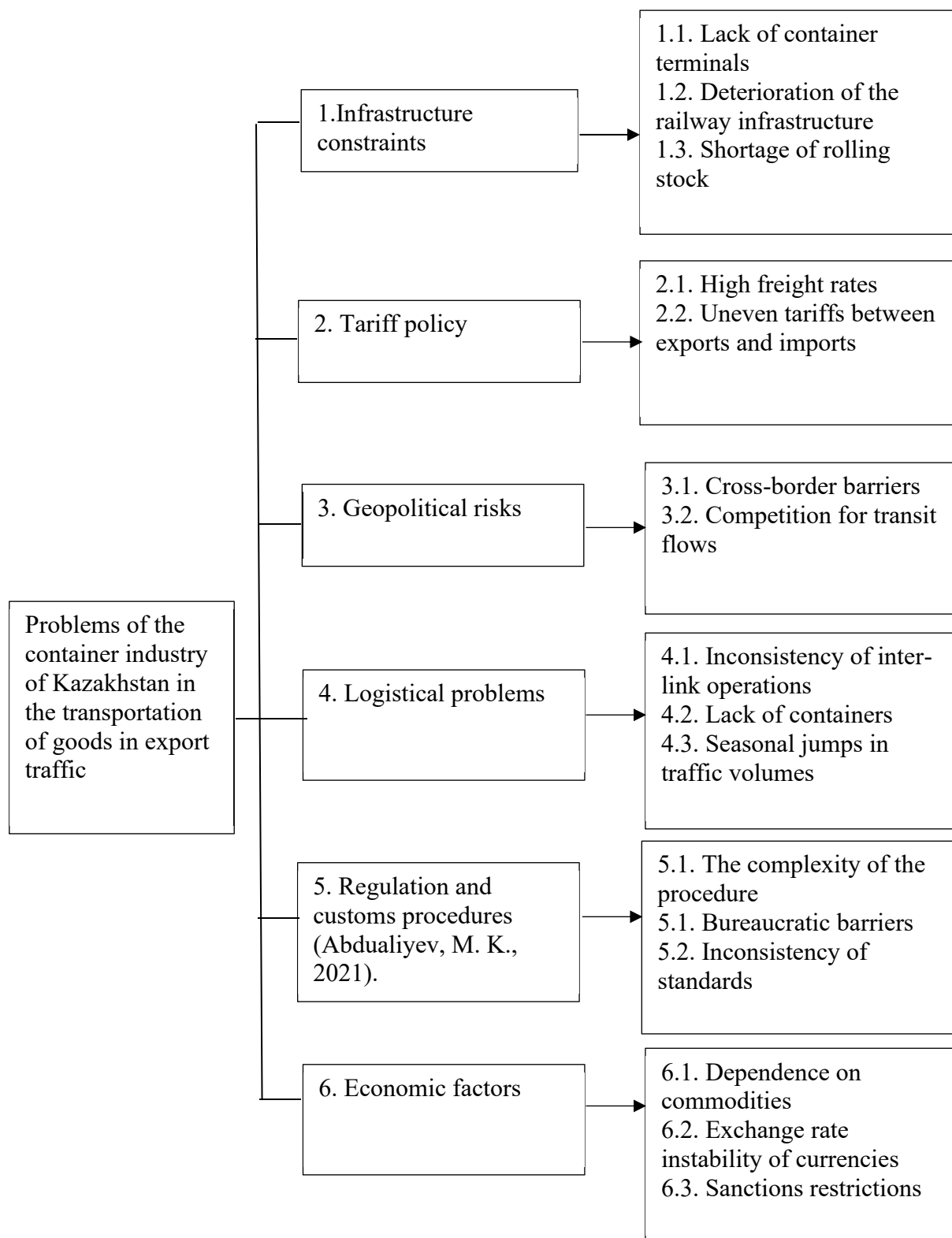


Fig. 2. Problems in the container industry of Kazakhstan when transporting goods in an export shipment

To date, the following main factors have led to a decrease in the volume of rail transport from Kazakhstan to China:

1. Sales of high-value-added products, large volumes of orders, the risk of losing a strategic sales market, etc. To the detriment of the Chinese market in Central Asia and the Caucasus, as well

as in the regions of Russia.

2. Starting in 2017, the obligations of the Republic of Kazakhstan (Belarus, Germany, Kazakhstan, China, Mongolia, Poland and Russia) will be fulfilled on the basis of a seven-party agreement on deepening cooperation in the organization of China-Europe container transportation;

3. China has imposed restrictions on loading and unloading container trains towards the Republic of Kazakhstan (from July 10 to September 9, 2021, loading of individual containers was prohibited, with the exception of wagons passing through Khorgos and Alashanka stations, Chinese and European container trains).

4. Kazakhstan does not have railway equipment designed to transport goods from China.

These are not all factors that have a negative impact on the development of export container transportation. but these trends are contributing to a slowdown in development in this area. Despite the sanctions.

Possible solutions:

-Development of infrastructure at border crossings: Increasing capacity and automation of operations at terminals;

-Harmonization of procedures and standards: Coordination of regulatory requirements between countries;

-Stimulating exports from Kazakhstan: Programs to increase the export of high-income goods;

-Integration of digital systems: Implementation of electronic document management and cargo monitoring;

-Subsidies for container shipping: State support to reduce tariffs;

-Strengthening multimodal connections: Development of ports and other multimodal logistics hubs;

These measures can reduce barriers and make container shipping more efficient for both parties.

CONCLUSION

Despite the negative factors of the transport and logistics industry, Kazakhstan plays a significant role in the logistics market in the Eurasian region increasing. The efforts of the State and industry should be combined to promote development. The state should create a high-quality transport infrastructure in the country and comfortable conditions for business development. Instead, companies involved in the logistics chain should move towards open and understandable markets and create effective business processes. To do this, you need to move from manual transport management to automated systems and digital services:

1. Implementation of infrastructure systems: construction and modernization of transport infrastructure facilities, development of international corridors and routes through the territory of the Member States (based on a comprehensive plan), development of master plans for the development of each corridor, determination of their capacity, assessment of necessary investments and sources of financing. Actively participate in international transport corridors.

2. Actions to integrate internal communications between Member States into regional and global networks: development of EU distribution networks, transport and logistics centers and wholesale centers; assessment of commodity resources taking into account trends in transport communications.

3. Digitization of transport processes: introduction of basic services in the ecosystem of the digital transport corridor, transition to electronic document management, implementation of the agreement on the use of navigation seals for the transportation of goods by various modes of transport.

4. Investment policy, customs control. Determination of total network investments and operating costs for each type of transport, renewal and modernization of rolling stock.

5. Development of programs for subsidizing and stimulating container transportation.

6. Cooperation with neighboring countries to unify standards and coordinate tariff policies.

These measures will help Kazakhstani companies become a more competitive participant in the global container transportation market.

REFERENCES

Abdualiyev, M. K. (2021). *Customs barriers and their impact on export flows of Kazakhstan*. Journal of Economics and Transport, 2021, No. 3, p. 19–26. (Оригинально заглавие: Абдуалиев, М. К. (2021) Таможенные барьеры и их влияние на экспортные потоки Казахстана. Журнал экономики и транспорта, №3, с. 19–26.)

Analytical report (2021). *Analysis of container transportation within the Union in order to develop proposals for their development*.

Ivanov, D. V., Smagulov, Zh. T. (2022). *Development of container transportation in Kazakhstan: analysis of current problems and prospects*. Journal of transport logistics, No. 4, p. 45–58. (Оригинально заглавие: Иванов, Д. В., Смагулов, Ж. Т. (2022) Развитие контейнерных перевозок в Казахстане: анализ текущих проблем и перспективы. Вестник транспортной логистики, 2022, №4, с. 45–58.)

JSC ((2022). *KTZ - Analysis of cargo transportation by rail for 2022*. Astana.

Nikitin, N.A. (2019). Ways to improve the process of organizing international container transportation. Collection of articles of the XIII International scientific and practical conference European scientific conference. Penza.

TRACECA (2016). Strategy of the TRACECA Intergovernmental Commission for the Development of the Europe-Caucasus-Asia International Corridor for 2016-2026. Electronic resource: [URL:http://www.traceca-org.org/fileadmin/fmdam/pdfs/Appendix_3_Strategy_Master_plan_TRACECA_rus.pdf](http://www.traceca-org.org/fileadmin/fmdam/pdfs/Appendix_3_Strategy_Master_plan_TRACECA_rus.pdf)

Uskenbaev, K. (2022). The transport industry of Kazakhstan demonstrates ... Electronic resource: primeminister.kz, <https://primeminister.kz> " news " transportnaya-otrasl-...