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THE IMPACT OF THE COVID-19 PANDEMIC AND THE WAR IN UKRAINE ON WORLD LOGISTICS

ВПЛИВ ПАНДЕМІЇ COVID-19 ТА ВІЙНИ В УКРАЇНІ НА СВІТОВУ ЛОГІСТИКУ

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The article is devoted to identifying aspects that influenced international logistics operations during the COVID-19 pandemic outbreak and the war in Ukraine. International logistics is a functional area of logistics aimed at optimizing the flow of goods beyond national economies. Certain barriers can hinder the fulfillment of international logistics tasks. Currently, global food supply chains are subject to disruptions of varying degrees, but it is land and air freight that is severely disrupted. The crisis caused an imbalance in cargo flows due to changes in demand, the cessation of production, and the introduction of restrictions. The main sides of dependence on particular states during both the COVID-19 outbreak and the war in Ukraine are identified. The impact of events in recent years on all modes of transport is analyzed. Possible options for future developments and the consequences that the world economy may face are outlined.

Keywords: COVID-19, global pandemic, supply chain, logistics, transport, Russian-Ukrainian war, sanctions.

Стаття присвячена визначенню аспектів, які вплинули на міжнародні логістичні операції під час спалаху пандемії COVID-19 та війни в Україні. Міжнародна логістика зосереджена на управлінні імпортною та експортною діяльністю. Обмін організовується транскордонним транспортом із застосуванням відомих логістичних методів. Він надає зацікавленим сторонам логістики оптимізовані рішення для обміну товарами та транспортування людей між різними країнами. Кінцевою метою міжнародної логістики є присвятити діяльність управлінню транспортуванням вантажів. У статті проаналізовано різні фактори, які стали чинником різкої зміни відносно стабільного стану світової логістики. Добре регульована логістика є важливою частиною успішної економіки. Вплив COVID-19 проявляється у всіх типах підприємств різних галузей. риза викликала дисбаланс у вантажопотоках через зміну попиту, зупинення виробництва та запровадження обмежень. Основними логістичними тенденціями стали зниження вантажопотоків у глобальному та локальному масштабі та відсутність простих, зрозумілих правил гри в умовах карантину для представників логістичного ринку. Пандемія стала гарним уроком для логістики, що дозволяє зробити ланцюжки постачання більш стійкими, що означає поліпшення планування запасів і відмова від постачання тільки з одного місця, так звана диверсифікація ризиків. Російсько-українська війна вплине на світову торгівлю найближчими місяцями, особливо з урахуванням накладених на країну-агресора санкцій. Досліджено світовий досвід вирішення проблем, які виникли внаслідок пандемії та війни. Великі міжнародні перевізники відмовляються перевозити та постачати російські товари. Визначено основні сторони залежності від конкретних держав під час як спалаху COVID-19, так і війни на теbриторії України. Проаналізовано вплив подій під час останніх років на всі види транспорту. Окреслено можливі варіанти розвитку подій у майбутньому та наслідки, з якими може стикнутися світова економіка.

Ключові слова: COVID-19, глобальна пандемія, ланцюг поставок, логістика, транспорт, російсько-українська війна, санкції.

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Problem statement. Logistics – the process of managing the production, movement and storage of materials and goods, as well as related information flows through the organization of channels of goods movement, with current and future costs are minimized with highly efficient execution and delivery of orders. Logistics at the present stage should be seen as a key element of the competitive market strategy of the enterprise as a key primary activity to ensure competitive advantage. The outbreak of the deadly COVID-19 virus in 2020 not only killed people but also seriously undermined the economy. Because of the severe quarantine, production and logistics activities were suspended, and this affected the demand and supply of a variety of products because of restrictions placed on shopkeepers and retailers. The next issue the world encountered was the Russian-Ukrainian war. It worsened the already weakened logistics operations.

Analysis of recent research and publications. Well-regulated logistics is an important part of a successful economy. The impact of COVID-19 is seen across the board in every type of unit from different sectors. The pandemic shook the world. Such big organizations like UNICEF and International Finance Cooperation have made separate researches to reflect on the impact of the coronavirus. They came to the same conclusion – it was a severe effect on society and on every sector of the economy including the logistics and transportation segments [1, p. 21; 2, p. 9]. In 2022, the world faces another terrible event: the horrendous war that Russia has unleashed on Ukraine. The Russian invasion of Ukraine means that the disruption of the supply chain, already somewhat weakened by the COVID-19 pandemic, may take even longer to get stronger. With the advent of the war, most customers of logistics companies ceased operations. It is now critical for Ukraine to strengthen international partnerships in the field of logistics, and somewhere just to ask for temporary help [3, p. 2].

The unresolved parts of the general problem. The war has been actively going on for 3 months now, but there is almost no light shed on the problems it is causing to international logistics. On the other hand, there is plenty of research about COVID-19. It has to change because it is a much bigger problem than it may seem to be to some people. It is essential to do profound research on this problem as well.

Purpose statement. As international logistics is a vital part of a well-regulated world, the purpose of the article is to analyze the present information on the situation in the world economy and to find possible ways of improving the state of things.

The main research material. Since logistics faced the coronavirus earlier than the war, it is more logical to consider the problems in order of occurrence.

1. Lack of resilience strategies and contingency plans. The first cases of the virus were detected in mainland China when risk evaluation protocols were implemented. Many countries had plenty of time to plan and prepare and develop emergency plans to stop the spread of the virus. However, the current headlines tell us a different story due to supply chain disruption. Quarantine and social distancing rules can only do so much. More than 50 percent of companies in the logistics industry have been affected by supply chain shutdowns from their partners [4, p. 3]. As a result, the consequences for the economy as well as consumers have been calamitous.

2. Closed borders. Countries began shutting their borders to entry in an endeavor to prevent the transmission of the virus in their territories. Producers shipping raw materials from countries regarded as hotspots for the virus were forced to halt their business. Even predating the pandemic, trade-offs with suppliers from countries such as China were teetering on the brink. As policy starts to operate on where the virus originated, it is almost uncertain whether the situation will resolve itself anytime soon. As a response, most logistics companies have severed ties with said countries and closed their borders to trade. Given this, most countries between trade routes can no longer gain from the partnership.

3. Labor shortage. With supply and demand constraints, most companies have resorted to laying off most of their workers to cover their operating costs. As a result, those who succeeded in keeping their jobs revealed that they were working wretched hours in order to comply with standards. On the same note, the number of workers who died of the deadly virus has increased. Most health care providers informed about the majority of social and factory workers who were quarantined after falling ill. The remainder chose to stay home, scared for their lives. As a corollary, labor shortages at the production and supply level caused pressure on logistics and delivery of goods [5, p. 1].

4. Restrictions on air and sea freight. As some countries were blocked, the cargo industry was the first to experience the blow of the pandemic. On typical flights, most passenger planes usually carry a relatively small percentage of cargo on-base carriers. Yet because all planes were suspended and most flights were terminated, the market had to deal with a lack of supplies. Some might contend that business from cargo planes has risen as traffic is diverted through its channels. However, even they are not keeping up with market demand. On the same note, increased health inspections have only led to new delays. For the longest time, ocean routes were in use as a cheaper alternative mode of transportation at the cost of on-time delivery. However, even they suffered the impact of the virus as most suppliers halted their operations. With nothing to transport, the ever-busy ports now serve as docking ports for many cargo liners.

5. Affected land transport. Even when merchandise does reach the destination country, it will not miraculously appear on the consumer's front doorstep. Ground transportation through truck drivers has also been affected by the pandemic, as truckers are now mandated to be authorized to work as basic service providers. There has also been an elevated demand for local products, such as groceries and medical supplies, that require transportation. Seeking to meet the essential demand, many logistics companies have overloaded drivers. Furthermore, consumers are also encountering delays due to increased medical inspections at the state border. Once they arrive at their destination, companies that once relied on the driver to sign for their goods during delivery can no longer count on the methods. This is because of government-imposed quarantine and social distance rules to contain the spread of the virus [6, p. 35].

6. The complexity of air freight over countries. The ongoing situation adds another layer of complexity to the air cargo market. The airspace over Ukraine was closed as early as the first day of the war by the president, and substantial sanctions have been imposed on Russia since then. Air cargo capacity has fallen by 1/10th, with rates skyrocketing due to increased demand and reduced passenger aircraft capacity. With the closure of Russian and Ukrainian airspace and airspace sanctions imposed on Russian-owned aircraft, air transport capacity will decline dramatically and rates will rise. Tariffs have already soared amid uncertainty and rising fuel costs. Airfares are expected to remain high, which could impact the express delivery of time-sensitive food items with high ticket costs.

7. Dependence on basic agricultural commodities of both Russia and Ukraine. Both Russia and Ukraine account for more than 25 percent of global wheat trade and 60 percent of global sunflower oil exports and 30 percent of global barley exports, according to the U.N. Food and Agriculture Organization. Russia is also a major global fertilizer exporter, which means that any supply shortages or limited access could have an impact on crop yields around the world [7, p. 2]. Russia is in addition a primary source of neon, used for etching circuits on silicon wafers. Palladium, an important component of catalytic converters for cars, has increased in price by 80% since the war broke out.

8. Blocked ports for sea freight. All of the floating cargoes that were first brought into Ukraine will be diverted to neighboring ports, notably Romania, Lebanon, or Greece. Although some Russian vessels are still operating, it is likely that sanctions similar to those imposed on air operations will be imposed on ships as well. Several of the major carriers, such as CMA CGM, Maersk, Hapag Lloyd, and MSC, have halted all operations to and from Russia by this time. In addition, it is expected that there will be a significant increase in BAF surcharges due to the escalation of oil prices. Before the war, 75% of Ukraine's foreign trade was accounted for by seaports [7, p. 1]. From February 24, 2022, they are all blocked. However, this was not a verdict. On the contrary, we see that companies have begun to look for alternative ways to establish logistics chains.

9. Discounted operations in road carriers. Russia absorbed a significant portion of EU road imports and exports in 2020. Principal road carriers have discontinued operations with the two countries, but a number of smaller operators continue to operate, but do not oblige in terms of delivery times. Alternative road transport routes, such as via Turkey and the South Caucasus, are likely to profit from the ongoing disruptions because of their flexible nature. Labor risks persist, with drivers unable to work in the war region. All borders to and from Ukraine remain sealed, with some exemptions solely for defense and government movements Although Russian borders continue to be open, the crossings are difficult, and many carriers have decided to cease operations to and from Russia.

10. Suspended rail freight. When it comes to rail freight traffic between China and Europe, about 4% of China-Europe rail freight was in transit via Russia (the Trans-Siberian route) and 2% via Ukraine. While routes via Ukraine have been suspended, other routes (including via Russia and Belarus) continue to operate, but with an increasing risk of upcoming blockages [8, p. 1].

Conclusions. People are resilient enough to surpass most of the obstacles they encounter.

The challenges that logistics companies experience because of the COVID-19 pandemic are just one barrier to overcome [9, p. 23]. However, their success will hinge on contingency planning and their flexibility with respect to change. Some challenges posed by the pandemic include additional costs for logistics and transport, declining demand for passenger travel, and strong demand for technological innovation. Moreover, the Russian-Ukrainian war is forecast to have a strong impact on global trade in the coming months, especially given the above-mentioned sanctions. Among the results, one can await an upturn in transportation and logistics expenditures, supply chain disruption, higher gas and electricity prices, etc.

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