

# Strategic Adaptation of Business Logistics in High-Risk Environments: Evidence from Wartime Ukraine

by Dmytro Savkiv | Kyiv-Mohyla Academy

Abstract ID: 130

Submitted: May 11, 2025

Event: CloudEARTH*i* Conference 2025

Topic: Circular economy: supply chains, resource efficiency, innovation, education and awareness

The full-scale invasion of Ukraine by the Russian Federation has caused immense destruction to national infrastructure, resulting in the collapse of many established logistics chains. As of late 2024, nearly 30% of Ukraine's transport infrastructure—including critical roads, railways, and bridges—has been damaged or destroyed, disrupting both internal distribution and international exports (GMK Center, 2023). For Ukrainian businesses, the strategic redesign of logistics processes became not a matter of efficiency but a matter of survival.

Agribusiness companies were among the first to implement large-scale adaptive strategies. NIBULON, one of Ukraine's largest grain exporters, had relied heavily on Black Sea ports prior to the war. After the blockade of major ports such as Mykolaiv and Kherson, the company swiftly redirected its operations to the Danube River via the Izmail and Reni terminals, restoring partial export capacity and preserving critical trade flows (UNCTAD, 2023). Similarly, MHP, a leading poultry producer, not only rerouted its supply lines to alternative European markets but also sustained its operations through in-house power generation and logistics hubs in western Ukraine. Despite damage to warehouses and production facilities, MHP managed to donate over 11,000 tonnes of poultry as humanitarian aid in 2022 alone, showcasing a hybrid model of crisis logistics and corporate responsibility (MHP, 2023).

Ukrainian Railways (Ukrzaliznytsia), as the country's largest state logistics operator, played a critical role in preserving internal connectivity. Despite facing over 5,000 kilometers of damaged or destroyed railway lines and frequent attacks on infrastructure, the company rapidly restored essential routes in safer regions and transformed its freight logistics by shifting cargo from blocked southern ports to western border crossings with Poland, Romania, and Hungary (Deloitte, 2023). Moreover, Ukrzaliznytsia expanded its coordination with the government and international partners to enable the evacuation of civilians and the delivery of humanitarian and military goods. These adaptations were supported by rapid digitization of schedules, cargo tracking systems, and energy resilience measures, such as relocating operations away from frontline areas.

Meanwhile, UkrAVTO, one of Ukraine's largest car dealers, faced the collapse of traditional supplier relationships. In response, the company established flexible procurement chains with European partners and invested in backup energy sources to ensure uninterrupted service at repair centers and dealerships across central Ukraine (Forbes Ukraine, 2023).

These cases highlight several critical dimensions of logistics adaptation: diversification of

transport corridors, digital and energy infrastructure resilience, cross-border decentralization of inventory, and strategic public-private partnerships. Such transformations were not theoretical strategies; they were implemented rapidly, often under fire, to prevent total business paralysis.

Lessons from Ukraine's wartime logistics response have clear implications for companies operating in high-risk areas, such as Israel, Kashmir, or regions prone to earthquakes and flooding. These businesses must anticipate infrastructure disruption as a central risk and respond by building redundancy into logistics routes, securing energy autonomy, decentralizing physical assets, and digitalizing decision-making processes. Embedding logistical flexibility into the organizational culture can reduce reaction time during future crises.

In conclusion, the Ukrainian experience demonstrates that logistics in war transcends supply and demand management—it becomes the backbone of national and corporate resilience.

## References

1. GMK Center. (2023). How the Russia-Ukraine war has impacted logistics routes and supply chains. <https://gmk.center/en/posts/how-the-russia-ukraine-war-has-impacted-on-logistics-routes-and-supply-chains/>
  2. UNCTAD. (2023). Ukrainian grain flows and Danube logistics. <https://unctad.org>
  3. MHP. (2023). Corporate responsibility and logistics adaptation in wartime. <https://www.mhp.com.ua/en/press-centre/news>
  4. Deloitte. (2023). Lessons from Ukraine on building business resilience during wartime. <https://www2.deloitte.com/ce/en/pages/about-deloitte/articles/lessons-from-ukraine.html>
- Forbes Ukraine. (2023). How Ukrainian automotive companies are surviving wartime disruption. <https://forbes.ua>