

# Popular Abstract - The Impact of the Pandemic and War on the State of Global Supply Chains

When analyzing global supply chains, there are various macro factors that need to be considered and evaluated as to what extent they have an impact on businesses' operations and networks. Examples of such factors include oil prices, labor costs, currency exchange rates and trade barriers. Two recent global events that have affected supply chains through such factors are the Covid-19 pandemic as well as the Ukraine-Russian war. In the spring of 2020, the Covid-19 virus was quickly spreading across the world, infecting people within most countries on the planet. As a result of the pandemic, many countries implemented lockdown policies, forcing numerous businesses to shut down, and many more to drastically reduce their operations. In February 2022, Russia invaded its neighboring country Ukraine. Similarly to the pandemic, the war has led to a humanitarian crisis but at the same time affected the global economy and supply chains in a number of aspects, including energy policy, food security and supply of critical materials and commodities. The purpose of the thesis was to outline the current state as well as future prospects of global supply chains and global energy supply as a consequence of the pandemic and war. (Fioravanti et al., 2009)

The implications on global supply chains that have been observed as a result of the pandemic as well as the Russia-Ukraine war has led to general supply chain challenges becoming more apparent and visible on a worldwide scale. Short term problems involve insufficient critical products and materials, disruption within food production systems, shortage of energy supply, and temporary trade restrictions. In combination with more long term issues such as energy transition, efficient use of new technology, a digitalizing landscape and overall exposed weaknesses of the Just-In-Time supply chains, they pose some major challenges for supply chains to be solved. Previous strategies involving lean manufacturing and minimizing inventory held as a way to optimize total costs have experienced problems when it comes to meeting customer demands. The challenges generally revolve around increasing resilience, improving flexibility, gaining end-to-end visibility, improving disruption and change management and getting value from data. (Hoey, 2020)

The pandemic has affected all parts of supply chains, spanning from sourcing of raw materials all the way to the end consumer of products and causing logistical disruptions. The disruptions lead to goods being left in storage, transporting ships to slow down, which in turn limits the flow of trade and ultimately causing challenges for companies to import products for their inventory. Moreover, delays within production, including longer purchasing lead times as well as less availability of products has been an issue. (KPMG, 2021)

Considering the war in Ukraine, it has affected global energy supply chains to a large extent. Businesses as well as households will suffer due to volatile prices, as it changes the course of selecting fuels and reversing progress in terms of global access to energy. In relation to general policy, securing supply as well as protecting consumers has been a primary target in order to take on short term issues. In addition, several governments are taking long term actions towards policies regarding clean energy. In terms of energy trade, sanctions as well as cut backs on gas supply from the Russian side have their consequences in reshaping global trade flows, particularly concerning fossil fuels. (IEA, 2022)

The thesis continues to review some of the measures that have been taken as well as suggestive measures by businesses and governments. In order to increase resilience for supply chains, methods involve added inventory levels, earlier identification of risks, localisation of sourcing and supplier diversification. Improvements within planning & scheduling, logistics, procurement & sourcing and operations & manufacturing are necessary and have been discussed in the thesis. It is clear that companies have to rethink their structures in terms of risk management in order to handle the next crisis in a more efficient manner, whether it be more localized sourcing, sacrificing cost efficiency for improved resilience or various safety measures for prevention and reduction of risks. (Accenture, 2021)

Regarding the issue of energy, some measures have been taken by the European Union in order to handle the short term problems of increased prices. In the short term perspective, solutions to the current energy crisis need to be sorted out, finding ways to handle rising prices and shortages. In the long term perspective, dealing with sustainability targets, balancing conventional and renewable options as well as establishing alternative trade flows of energy are some of the main concerns. Unifying the various issues concerning global energy supply will be challenging and interesting to follow in the coming years.