

Covid19 Pandemic Related Supply Chain Disruptions, Economic Impact and Recovery

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Abstract:

The Covid19 Pandemic was declared as a Public Emergency in early 2020. But it was also the reason for one of the major Supply Chain disruptions in our times which impacted the Global Economy. This article reviews the impact caused, vulnerabilities and problems exposed in Supply Chain leading to a change to become more resilient and sustainable. It forced the Supply Chain Teams to think out of the box and have long term solutions to avoid a similar situation in managing their supplies.

Keywords: Pandemic, Supply chain disruptions, Global Economy

Introduction

While the world was grappling with trying to get information on the Covid19 virus, effects and treatment methods there was much which was unknown. The Disease Control agencies world over including the CDC was monitoring the cases, symptoms and treatment plan for the affected. In an effort to control the spread during the Pandemic, people were asked to stay home and avoid meeting or travelling. This along with the loss of lives brought many countries and economies to an absolute standstill.

The workforce plans changed, businesses and factories closed, people were let go and where possible staff were accommodated to work from home. This impacted the global supply chain immensely on whichever industry including food, healthcare, construction etc. depended heavily. This also revealed the vulnerability in Supply Chain globally.

Objectives

- To study the causes that led to Supply Chain Disruption during Covid19 Pandemic
- To analyze the economic Impact of the Supply Chain Disruption during the Pandemic
- To recommend ways by which Supply Chain Disruption can be averted

Methodology

The study has made use of secondary data from books, journals, papers and websites

Impact of the Supply Chain Disruption:

Product Shortage/increased Demand:

Increased Demand, Logistics disruption and Capacity constraints all added to the Supply Chain Disruption. Many factories were closed and products/ components were not manufactured which like a Domino effect resulted in a delay or shortage in the manufacture of key products leading to a longer

delivery time. Restricted availability of products and labor lead to shortages and increased costs. The Supply Chain Leaders were driven to improvise and think out of the box to source equivalent products and also to make the product last.

One of the major products in shortage and impacted were PPEs (Personal Protective Equipment) like Isolation Gowns, Gloves, Masks etc. China was a leading supplier of PPEs to most countries. As it was on a lock down and their factories were not working at full capacity, they were unable to meet the heightened demand from other countries depending on China for products. This meant that the Buyers had to source these products from other countries which opened up new markets for these products beyond China. It also showed the stark reality of depending only on one Country for primary products and not having a backup which caused an impact in the availability of supplies. Malaysia and neighboring countries were able to step up to meet the demand of gloves.

Many products like 3M N95 Masks and PPEs etc. were in severe short supply. During the Pandemic the 3M N95 Masks were the safest masks for the frontline staff. These were also in very high demand. In many countries the Government ensured that the Manufacturer first gave them the preference to build their Pandemic Inventory before it was issued to Hospitals and other customers. This impacted the Hospitals such that they had to improvise with developing other measures in making the quantity of Masks on hand stretch or last for long at the same time keeping the front line staff safe. Following CDC guidelines and Infection Control practices, individuals were provided brown paper bags to keep their masks in and reuse when they checked on Covid impacted patients. This helped to ensure that they could get more uses of the Masks.

Increased Demand and Product shortage led to Increased Price

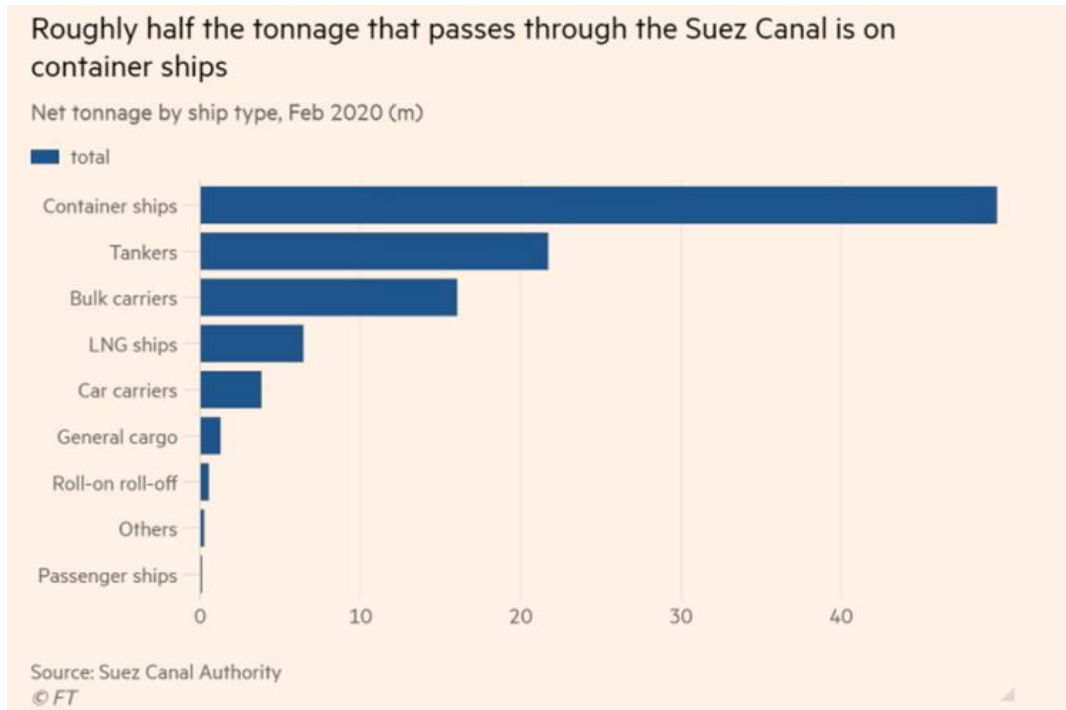
The disruption caused due to reasons stated above further led to economic instability. This still has been a cause for product shortage, increased price and inflation. This has impacted almost every industry from Food, Fuel to Construction. Economies in the Asia Pacific, many of which rely heavily on imported goods, are vulnerable to the consequences of supply chain disruption for production and consumption.

Before the Pandemic the Supply Chain never planned for 3 or 6 months of Inventory on hand, it was more like a Just in Time type of Inventory Management. That meant that a minor disruption now could impact them heavily.

This complexity means the accumulated effect of disruptions can take a long time to be resolved. For example, the Suez Canal blockage in March 2021 temporarily stopped 369 ships from passing through the canal and delayed an estimated US\$9.6 billion worth of trade each day. The effects of the delay were still being felt months after the blockage was resolved. Even in non- pandemic times, a shock of that proportion could impact supply chains for six to nine months ahead.

The Suez Canal, which separates Africa from Asia, is one of the busiest trade routes in the world, with approximately 12% of total global trade moving through it. Energy exports like liquefied natural gas, Crude oil, and refined oil make up 5% to 10% of global shipments. The rest of the traffic is largely consumer products ranging from fire pits to clothing, furniture, manufacturing, auto parts and exercise equipment, Chart 1.

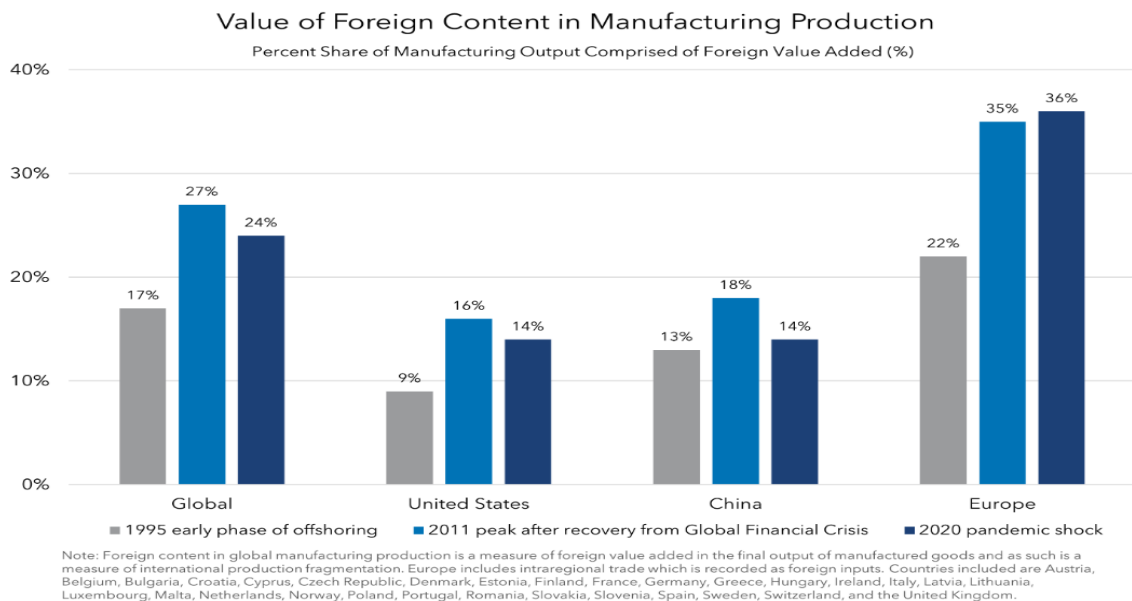
Chart 1



Conclusion- Global Economic Recovery

Knowledge and Awareness is key. Supply Chain Leaders today ensure that they are resilient and thinking ahead. They are ensuring that they are adequately stocked to prevent a situation by creating a stockpile of PPEs. Countries are sourcing locally and not depending on another country only for a cheaper priced product as shown in Chart 2.

Chart 2

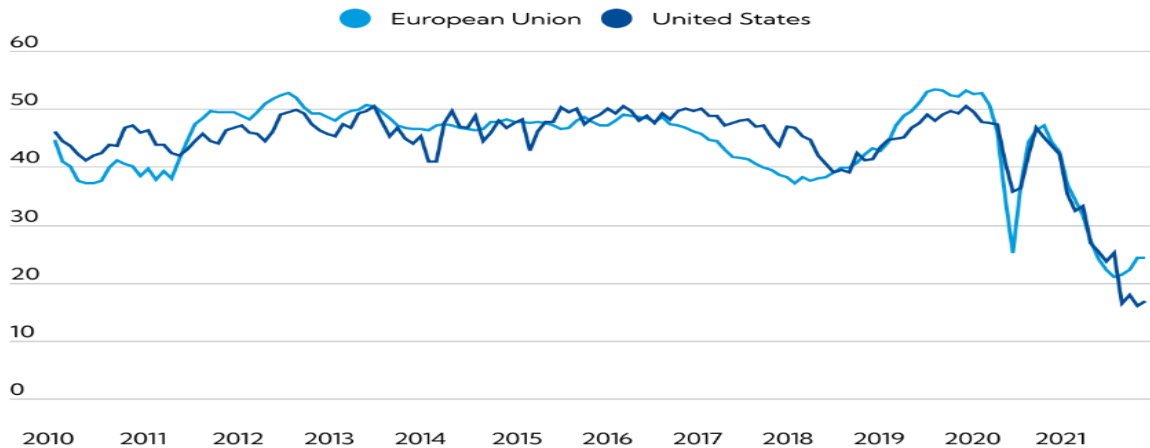


The above chart shows that the delivery times have reduced significantly indicating that there is progress towards normalcy and stability.

Chart 3

Backlogs and bottlenecks: supply chain turmoil

Suppliers' delivery times in the US and EU have slowed considerably — a lower index reflects longer delivery times. (Manufacturing PMI, suppliers' delivery times)



Sources: IHS Markit.
 Note: PMI=Purchasing Managers' Index. Readings above 50 indicate faster delivery times, readings at 50 signal no change, and readings below 50 indicate slower.



Supply Chain teams are now also investing in Technology and collaborating with Companies which monitor world events which can possibly impact the supplies right from the country where the raw material may be sourced to plan ahead and avoid further supply disruptions.

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