



Early impacts of COVID 19 on and Shipping and Port Operations

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Overview and Introduction

COVID19 and global response measures

General impacts of global response measures

Crisis supply chains and critical supply chains in crisis

Operational management of critical supply chains in crisis and challenges

Impacts on Asian shipping and ports operations

Summary and recommendations

In the beginning

The first emergence of Corona Virus Disease 2019 (COVID19) in Wuhan, China brought chaos and panic in China, and around the world (Xiao & Estee Torok, 2020; Guan et al., 2020a).

COVID19 virus is highly infectious

It resulted in deaths and severe economic disruption in first in China, then the rest of the world (Worldometer, 2020).

Declared a global pandemic within six months by WHO (Xiao & Estee Torok, 2020; WHO, 2020; Worldometer, 2020).

More than six million people affected worldwide as at the first week of June 2020 (Roser et al., 2020a).

More than one million confirmed dead by October 2020 (Roser et al., 2020b).

Global response measures

World Health Organisation (WHO) coordinated measures to contain the initial epidemic

Mitigation strategies and infection control actions

Spraying of public spaces

Mandatory use of face masks and sanitizers

Mandatory isolation, quarantine and social distancing

Mobility lockdown: border closures and restriction of human and freight movements, sanitisation of cargoes, and personnel (Wolfe & Brain, 2020; Tuzovic & Kabadayi, 2020).

General impacts of global response measures

Lockdown of commercial activities nationally and internationally was singularly most impactful (Guan et al., 2020b).

Borders closures showed lack of local alternatives to global suppliers.

National and global transportation disrupted (Guan et al., 2020a).

Global production and associated supply chains halted (Bornaccorsi et al., 2020; He et al., 2020).

General impacts of global response measures cont'd

Demand drop and demand spikes in various global supply chains
Pattern of import and export trade disrupted (Ebrahim et al., 2020).

Companies and logistics and transport employees began working remotely online.

Customer service in the delivery of cargoes and parcels reduced due to extended order cycles.

Service and freight delivery delayed due to capacity reductions, and additional safety measures (Choi, 2020).

General impacts of global response measures cont'd

Loss of belly cargo of passenger planes literally halted logistics operations (Devi, 2020; Sun et al., 2020)

Retail consumer and grocery shopping migrated online (Broughton, 2020).

Unprecedented parcel and cargo volumes with reduced capacities (Dodds, 2020)

General impacts of global response measures cont'd

Last mile delivery logistics struggled to scale up to demand, and to deliver to consumers in lock-down (Dodds, 2020).

Refusal of entry to truck drivers to enter quarantine zones, or to get back out hence delays.

Implementation of WHO COVID19 mitigation resulted in supply chain disruptions.

Crisis supply chains and critical supply chains in crisis

The impacts demonstrated the fragility and low resilience of many global supply chains when crises strike.

Operational management of critical supply chains in crisis and challenges

Hierarchy of needs approach given the immediate threat to life, health, food, shelter and security, in that order (Wolfe & Brain, 2020; Esper, 2020).

(1) healthcare supply chains, and (2) essential consumer retail goods supply chains (Esper, 2020).

Criticality and importance to sustenance of human life, welfare, and community wellbeing.

Crisis supply chains and critical supply chains in crisis

Healthcare supply chains to hospitals, care homes and general practice

Need to keep healthcare supply chains scalable and open on demand (Govindan et al., 2020; Lemke et al 2020).

Sudden global shortages of intensive care unit (ICU) human resource capacity, personnel, and equipment for treating COVID-19 patients.

Global shortages of personal protective equipment (PPE) opportunistic procurement and pricing, and hoarding of stocks out of fear (Nowak et al., 2020; Baddeley, 2020);

Inability to orchestrate critical resources across diverse – public and private – healthcare providers in some countries (Kim & Kreps, 2020; Janssen & van der Voort, 2020).

Essential consumer retail and grocery supply chains

Uncontrollable panic buying and stockpiling in homes (Corkery & Yaffe-Bellany, 2020; Hall et al., 2020)

Protective face masks, and hand sanitizer triggering the impacts of associated ‘bullwhip’ effects in these supply chains (Nowak et al., 2020; Baddeley, 2020).

Scarcity of these goods appear to have caused fake products, unnecessary profiteering, and corruption to increase worldwide (Kirk & Rifkin, 2020).

Some industrial supply chains with limited agility and flexibility could not respond hence, wastage and scarcity (Ivanov, 2020).

Prior focus on (excessive) leanness and cost efficiency for supply chain cost savings (Paul & Chowdhury, 2020).

Impacts on shipping and port operations

A. Slump in global trade, oil prices, shipping, and crewing

B. Port congestion

C. Marine insurance and potential claims

e.g. cargo accumulation, delays, perishable goods and potential legal disputes

D. Sourcing shift from China, and sovereign and regional supply chains

E. Shipbuilding and repairs and ship sale and purchase

Operational implications

COVID-19 resulted in sudden reduction of transport and logistics capacity as well as the capacity of various facilities, depots, and supply chains.

Port congestion and delays

Reduction in import and export activities results in reduced demand for dry bulk and container freight shipping.

Reduction in crude oil prices at the beginning of the pandemic

Operational implications

High demand for tankers to be used as oil storage

Seafarers and the operations of crewing/ manning agencies disrupted due to lack of international air travel.

Operational implications

Reduction in shipbuilding and repairs and ship sale and purchase

Some minor sourcing shift from China but mainly ‘talk’.

Serious policy discussions of sovereign and regional supply chains

Recommendations

COVID-19 is still unfolding (e.g. Europe and USA is experiencing 2nd / 3rd waves and other rounds of lockdown, hence, strategic and operations planning must be dynamic and must continue.

Crewing challenges may result in a lowering of vessel maintenance standards, which is not conducive to maritime security and safety. Hence, shipping companies must be careful.

Shippers must plan for potential insurance claims from various sources of dispute such as cargo accumulation, cargo delays, delay clause, demurrage charges, deviation, *force majeure*, and interruptions in transit.

Recommendations

COVID-19 will be around for at least another year despite vaccines and US election results hence, shipping and port operations must continue to strategise and plan to adapt as efficiently as possible.

Even if a vaccine is distributed on time, it will be challenging for shipping and port operations to ‘re-normalise.’

