GUEST COLUMN

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PUTTING LEAN INTERNATIONAL SUPPLY CHAINS TO THE TEST: A RESILIENT QATARI MODEL

With widespread globalisation, outsourcing and the constant search for efficient and leaner business operations, supply chain disruption risks are at an elevated level. This continues to be true even for the most robust of all food supply chains. Many studies have documented such risks in relation to natural disasters, extreme weather, fires, environmental hazards, geopolitical occurrences, and even business developments such as bankruptcies, mergers, and acquisitions.

Through crisis and risk management approaches, companies and states are developing recovery strategies ahead of disruptions by considering alternative transportation routes, sourcing materials from other suppliers, and applying cross-network responses during disruptive events.

The Qatar Blockade: An Overview and Implications

Such circumstances merit an observation of closely related supply chain disruptions of a geopolitical nature; such as those caused by an illegally imposed blockade on the State of Qatar. The blockade by Saudi Arabia, Bahrain, the United Arab Emirates (UAE), and Egypt, which came into force on June 5, 2017, brought all air, sea, and land transport in and out of Qatar to a screeching halt. Even more alarmingly, the only Qatari land border crossing in geographical proximity with Saudi Arabia was obstructed, which resulted in major food import disruptions.

These sudden and unplanned disruptions created an additional layer of serious challenges from a logistical perspective. Firstly, sea routes between UAE and Qatar were no longer an option for global ocean carriers, who had become accustomed to transshipping cargo to and from Qatar. Secondly, direct flights between Qatar and the blockading countries were banned, meaning that all Qatar Airways flights from Doha to its worldwide network of destinations experienced significant delays as they were now obliged to

reroute and avoid Bahraini, Egyptian, Emirati, and Saudi airspaces. These factors – and more – have naturally led to major disruptions affecting Qatar's inbound and outbound supply chains.

Qatar's Pre-embargo International Trade Supply Chains

Prior to the embargo, Qatar's international trade supply chains for commodities and functional and dry products were designed based on lean supply chain strategies. This meant that the flow of products was largely dependent on land or sea transport via the UAE, Saudi Arabia, Jordan, Egypt, and other countries. The majority of Qatar traders had grown accustomed to purchasing their products from suppliers based in the UAE's Jebel Ali Free Zone.

For perishable and innovative products, where demand is difficult to forecast and market lead times are very uncertain, delivery processes are typically designed based on agile and responsive supply chains with products flying with several airlines through Hamad International Airport. Dubai was previously a huge location for Qatar cargo consolidation, as transiting via Jebel Ali proved more cost competitive than direct delivery due to the consolidation benefits and the economies of scale.

Qatar's Reconfigured International Trade Supply Chains

In the first few weeks of the embargo, all companies opted for the same scenario, consisting of re-routing shipments from the UAE and Saudi Arabia through Oman while urgent shipments were moved by air via third countries.

However, even rerouting was complicated as the UAE authorities did not allow trucks to depart to Oman if the final consignee was a Qatari company; hence, the only alternative was to engage in two-part delivery with a move to Oman followed by another move to Qatar.

The reconfiguration of the supply chain has led to many changes that intertwine with lean and agile processes. The resulting supply chain analysis shows additional activities due to route changes from Jebel Ali to Hamad Port through two different modes: land – sea and sea – sea, with the new setup of Sohar now part of the routing. Of course, this configuration resulted in additional time delays and costs incurred.

New International Supply Chain Routes and Hubs under Development

Since then, several logistics service providers have integrated other international ports in their supply chains to Qatar. For instance, Milaha has added new services linking Hamad Port with Sohar, Salalah, Kuwait, Pakistan, and India. Another independent service has been established between Sri Lanka and Bangladesh. Further, major shipping lines are re-routing some of their services to include Hamad Port.

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Remodeled Networks: What Can We Learn?

If we refer to the pre-embargo period, the configurations of the Qatar international trade supply chains seemed to be well-designed, well-planned, and well-executed. In fact, most commodities and functional products were transiting through efficient and lean supply chains with consolidated flows in hubs to take advantage of economies of scale and for the risk pooling effects.

With the imposition of the embargo, these lean supply chains turned out to be very risky and unable to ensure robustness for the overall logistical system. Consequently, the new routing configurations imposed rather agile and responsive supply chains even for commodities and functional products.