"Supply Chain Management Article" Nombre del docente María Esther Arguinzoniz Valenzuela Fecha de producción Lugar Julio 2023 Universidad Tecnológica de Querétaro. Programa educativo (Marque un solo programa con una X): P1. TSU en Administración Área Capital Humano - Intensivo P2. TSU en Administración Área Capital Humano - Flexible P.7 Licenciatura en Gestión del Capital Humano - Intensivo P3. TSU en Desarrollo de Negocios Área Servicio Posventa - Intensivo P.9 Licenciatura en Diseño y Gestión de Redes Logísticas - Intensivo P4. TSU en Desarrollo de Negocios P.9 Licenciatura en Diseño y Gestión de Redes Logísticas - Intensivo	Título del documento		
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La finalidad del presente es, apoyar el programa de estudios para aplicar, practicar, enfrentar y resolver problemáticas de actualidad, propias al desarrollo de la asignatura; ya sea de manera presencial o modalidad en línea. De igual manera fundamenta y coadyuva al resultado de aprendizaje correspondiente, tomando como referencia la método teórico-práctico y el fortalecimiento de la competencia correspondiente.			
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¹ Se recomienda consultar: Centro de Escritura Javeriano. (2020). *Normas APA, séptima edición*. Cali, Colombia: Pontificia Universidad Javeriana. <u>https://www2.javerianacali.edu.co/centro-</u> <u>escritura/recursos/manual-de-no</u>....

It's Time to Rethink Your Global Logistics

by

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- Adrien Foucault

March 12, 2021



HBR Staff

Summary. The initial supply and demand shocks caused by the pandemic were followed by an import surge as suppliers tried to replenish inventories, which threw normal transportation operations into turmoil. In the United States, this has included a lack of freight-handling...more

Over the last three decades, companies have established wide-ranging global supply chains that have taken advantage of steadily improving scale economies in global logistics. Efficient and reliable ocean and air cargo have linked low-cost manufacturing hubs across Asia with major markets in the United States and Europe. Much of this global sourcing was driven by the cost savings reaped through labor arbitrage, cost savings that were so dramatic that it more than covered the expense associated with moving products across vast distances to markets, or the extra cost of carrying inventory in long pipelines. Yet the disruption of Covid 19 pandemic, have added to the woes of supply chain managers who have tended to focus narrowly on their production partners and less on their geography and the links that connect them. With some of the shifts already underway to diversify production and make supply chains more resilient, it is a good time for managers to take a more holistic view of logistics as a dynamic and evolving link in their supply chains.

Concentrated East-West Trade Lanes

The massive increase in global merchandise trade of the last two decades and the shifts in production from the West (United States and Europe) to the East (Asia, particularly China) were fueled by labor arbitrage and cost advantages, but they were powered by low-cost container shipping and air cargo. On the ocean trade side, subsidies for shipbuilding and tax incentives for shipowners combined with giant new Euromax container ships (starting with the Emma Maerks in 2006) brought a step change in lower costs.

To utilize this capacity efficiently, container lines built east-west networks with efficient transshipment hubs, creating high-volume trade lanes on the trans-Pacific and East Asia-Suez-Europe routes. Fueled by a race to deploy larger and larger ships, chronic excess capacity also led to irrationally low prices for transporting goods halfway around the world.

Global air cargo underwent a similar transformation, thanks partly to the cargo capacity of long-range, wide-body passenger jets, while dedicated air cargo carriers built international trade lanes for high-value goods, like electronics and fast fashion, through hubs such as Hong Kong, Doha, Anchorage, and Dubai.

Managers drove efficiency by keeping inventories lean and taking advantage of the wealth of international cargo transport options. An almost singular focus on ex-factory cost and minimizing overall landed costs drove a concentration of traffic onto a handful of trade lanes. For example, exports from China left Shanghai or Yantian (in the Pearl River Delta) bound for the ports of Los Angeles and Long Beach, where they would be trucked to distribution centers or transferred to intermodal rail for destinations in the Midwest. By and large this worked very well, with occasional disruptions arising from labor strife or bottlenecks in hinterland infrastructure. But firms also built up their own processes and infrastructure around these trade lanes and grew complacent about their geographic layout.

Deteriorating U.S.-China relations and the disruptions caused by the Covid-19 pandemic have brought this complacency and lack of geographic diversity into focus. The initial supply and demand shocks were followed by an import surge in the second half of 2020 as suppliers tried to replenish inventories in preparation for the back-to-school and holiday seasons, while also accommodating demand growth from work-from-home and stay-at-home e-commerce.

This has highlighted a lack of capacity at Los Angeles and Long Beach. The traffic surge on the eastbound trans-Pacific has led to long waiting times for unloading, extended dwell times as terminal operators had to cope with equipment and staff shortages, and delays in unloading and returning empty containers or repositioning them for export loads. This has spilled into the intermodal rail networks that bring products to Midwestern distribution centers with additional delays and congestion surcharges. This has also become a problem for exporters as container shortages, and delays have spread to U.S. agricultural exports. Yet in spite of this well-known bottleneck, many organizations seemed locked into the geography of this Southern California flow. Even as significant sourcing shifts from China to Southeast Asia and South Asia, many firms have been slow to take advantage of new alternatives or to push ocean carriers to redesign their service loops.

Untapped Alternatives

Entrenched thinking on logistics networks has caused U.S. importers to miss opportunities for geographic diversification and better resilience. The expansion of the Panama Canal, which opened in 2016, gave vessels with capacity up to 15,000 20-foot-equivalent units (TEUs) — 50% larger than what the canal could previously handle — direct access to the Gulf and the East Coast of the United States. Average ship size traversing the locks increased by almost half, and the expansion was accompanied by more accommodating commercial policies from the Panama Canal Authority to promote traffic, including rebates trough a loyalty program for larger shippers.

In addition, the pandemic-related surge in ocean container pricing had the indirect effects of reducing the "Panama Spread" – the gap between shipping to the West vs. the East Coast. This dropped from \$1,300 to \$1,400 per container in early 2020 to \$600 to \$750 in early 2021. This is approaching some of the congestion surcharges intermodal rail operators have tacked onto traffic coming out of Southern California.

This hasn't diminished the primacy of Los Angeles and Long Beach for Asian imports as much as might have been expected. A large flow of imports destined for Midwest distribution centers continues to move through the increasingly congested port complex even when better alternatives might exist. While East Coast and Gulf of Mexico ports face longer ocean transit times and higher costs in normal times, factoring in delays experienced over the last six months might make these differences relatively insignificant. East Coast ports have worked hard to improve their infrastructure to provide better service. The Port of New York-New Jersey is investing \$3 billion over 15 years for upgrades, while the port of Virginia has invested in a combination of automatic stacking cranes, new rail sidings, new operations software, and platforms that help trucks get in and pick up their cargo in a little over half an hour with no queue time. In comparison, the average truck turn time at the Los Angeles and Long Beach ports averaged between 60 and 90 minutes in 2019, but has fared much worse since mid-2020.

Managers should pay attention to geography. With many firms relocating some of their production to Southeast Asia, ocean routings via the Suez Canal and the East Coast ports have become much more competitive. Singapore to New York and New Jersey westbound via the Suez Canal can take as little as 25 days versus 20 days to Los Angeles and Long Beach via eastbound trans-Pacific. Even Yantian in Shenzhen, China, is only 31 days westbound. The farther west from China production activities are located, the shorter the time gap to reach the U.S. West Coast vs. East Coast. For locations such as Singapore for which time at sea is slightly longer, the lower congestion and higher throughput of Eastern ports and proximity to large economic centers in the Midwest and Ohio Valley could make the Suez route very competitive for end-to-end transit times, especially when including delays from rail congestion in Southern California.

Ports along the Gulf Coast might make more sense as well. While U.S. imports transiting Gulf ports was 8.7% in 2017 and has not changed much, the rapid population growth in Texas should make shippers think twice. The Port of Houston is upgrading to receive larger ships (up to 18,000 TEUs), and capital spending is expected to double in 2021 compared to 2020. Houston is reachable in 28 days from Yantian via the Panama Canal. Similar expansion is taking place at the port of New Orleans, to handle ships up to 14,000 TEUs, along with an increase in intermodal capacity. Hapag-Lloyd, Ocean Network Express, Yang Ming, and HMM are Instituting Asian Gulf Services.

Some shippers are foregoing U.S. ports altogether and routing their cargo via Vancouver or Prince Rupert in British Columbia. Shanghai to Prince Rupert can take as little as nine or 10 days, several days shorter than even the new express services to Los Angeles and Long Beach. The two Canadian ports has instedealy increased theirvolume over the past few years, driven by lower intermodal transit costs to the U.S. Midwest, with savings of as much as \$400 to \$600 per container. Prince Rupert should be able to handle 1.8 million TEUs by mid-2022 (+33% from 2018), while Vancouver should reach 1.5 million TEUs yearly capacity. A Mercator study noted that both Vancouver and Prince Rupert could gain 15% of intermodal TEUs currently transiting though the U.S. West Coast, and that <u>the cost</u> <u>differences</u> using the British Columbia ports are so significant that further share erosion is likely.

Shifting Geography of Demand

Shifting demographics should also factor into logistics network design. <u>Six of the top 10</u> <u>U.S. states</u> in terms of numeric population growth were in the South or Southeast, and <u>six</u> <u>of the top 10 counties</u> in terms of population growth growth were in Texas. <u>CBRE</u> <u>reports</u> that while the Inland Empire, part of the Los Angeles and Long Beach hinterland, was tops for net absorption and construction of industrial real estate, it barely edged out Dallas-Ft. Worth, Texas. Five of the top 10 growth markets were in the South and Southeast. Of the 33 large warehouses <u>planned by Amazon</u>, only eight will be located in the western United States. The rest will be spread across the Gulf region, East Coast, and Midwest. The surge in warehouses and distribution center construction argues for a shift to East Coast and Gulf ports.

Pay More Attention to Logistics in Supply Chain Design

We suspect one of the reasons organizations stick with established trade lanes rather than more flexibly considering alternatives is a siloed view of supply chain design. Logistics links are not really considered as part of a supplier selection and sourcing strategy; rather they are put in place afterwards. With increasing moves to "<u>China + 1</u>" strategies for reducing dependency on China by adding sourcing in other Southeast or South Asian countries, a more thorough study of maps and geography can help with a more resilient design. As production shifts westward towards and past the Straits of Malacca, the demarcation for shipping westbound versus eastbound will warrant more attention. Large shippers and beneficial cargo owners could also make their voices heard with the ocean carriers. Last call and first call port selections can shave multiple days off transit times. Rather than go via congested ports to reach the Midwest, we envision an express service from Southeast Asia through Virginia ports that would be highly competitive in overall transit time and cost. You just have to look at the bigger picture.

Too often, logistics is considered a commodity service that adds little value to a company's value chain. Managing it often gets outsourced to a freight forwarder, where shippers have various degrees of visibility. When logistics is managed internally, it is often siloed from other parts of the business. This can result in the routinization of processes which could lead to a stagnant view of the overall supply topography and missed opportunities. In mid-February, when typically 30 or more vessels were waiting as many as eight days to discharge cargo at Los Angeles-Long Beach, the ports of Seattle-Tacoma had ample capacity. As shipping lines like CMA-CGM, Wan Hai, and ZIM launched direct services to less-congested ports in Northern California or Seattle, shippers who directly who controlled their own logistics strategy were able to take immediate advantage. Directly owning logistics is becoming even easier by the vertical (and sometimes horizontal) integration which is currently sweeping through the maritime shipping industry. The range of new services offered by traditional shipping lines facilitates one-stop shopping with better cargo visibility.

Logistics design should be a core part of supply-chain design and planning. For many businesses, especially the small and medium-size ones, this might require improving communications between logistics managers and other parts of the supply chain or directly making managers responsible for logistics. The challenges exposed by the Covid-19 pandemic have heightened the need for managers to understand the alternatives and to develop a better understanding of geography.