



COVID-19

Impact on Global Supply Chains



Executive Summary

COVID-19 has triggered widespread disruption on a scale that hasn't been seen by most people alive today. No one saw it coming, and those who saw leading indicators by December 30, 2019 couldn't have predicted a pandemic of this magnitude. This is a classic Black Swan. COVID-19 has caused catastrophic damage to the global economy. It has quickly disrupted all industries. And it is impacting every consumer, company, community and country on the planet. Supply chains have been hit hard in a variety of ways, with the most impacted being exposed at the nerve centers, especially in China.

According to an Institute for Supply Management survey, the COVID-19 pandemic has disrupted 75% of U.S. supply chains, and many industries are now experiencing secondary supply chain effects:

- Auto, electronics, capital goods, commodities and apparel companies are all facing headwinds from reduced parts availability
- Some companies are using air over sea-freight to deliver on promise
- Many are looking to restructure their supply chains away from China
- Big-box stores like Costco and Target are experiencing huge demand for healthcare and personal care products; yet medical supply export restrictions in several countries have created supply shortages





By the Numbers



Market Capitalization of all industry sectors has dropped 25-45%¹



Baltic Index is currently at 607 (down ~75% from its peak in September 2019)²



Container volumes from China into California's largest ports were down 35.2% in February 2020 and 44.9% in the first half of March 2020; the apparel and auto parts industries were critically impacted³



Over 60% of firms are experiencing shipping delays from China⁴



U.S. Consumer Sentiment fell sharply to 89.1 in March 2020 from 101 in February 2020, the lowest reading since October 2016²

According to a recent survey of CFOs⁵

- 87% suggested potential for “**significant**” impact to business operations
- 80% expect a **decrease** in their company's revenue and/or profits this year
- 31% said **supply chain issues** are among the top three concerns

Source: 1. finance.yahoo.com | 2. tradingeconomics.com | 3. wsj.com | 4. fortune.com | 5. pwc.com



All indicators point toward a grave situation. Nobody has the perfect response to deal with this disruption – and business leaders recognize this with utmost humility. We believe the first thing businesses must do in this situation, beyond fostering the health and well-being of their employees, is organize all available resources and capital in the enterprise to create a rapid response plan. We are calling this phase **Respond Now**, and we expect it to run for the next 90 days or so. Cash will be the oxygen equivalent; depending on the cash reserves, all strategies to conserve cash must be considered. Morgan Stanley estimates “one in six” U.S. enterprises don’t produce enough cash to cover interest payments on debts, and therefore debt repayment strategies need to be considered.

While some companies will fight for their survival, others have built a war-chest and are keen to consider the next big bet to emerge stronger from this global pandemic. Their approach may be twofold: responding to the current situation, while assessing initiatives to build resilience for future disruptions. The typical **Build Resilience** phase might start in 90 days and last two quarters.

Two or three quarters from now, companies might actively seek new consumer behavior patterns to drive emerging and innovative business models – with a focus on reinforcing digital strategies and creating a stronger online presence. This is the **Reinvent Business** phase. Intuitively, this means deploying resources and capital to drive digital commerce, supply chain transformation and last-mile delivery. The extent of digital transformation can be determined once the tide goes out. Some organizations may be in a position to begin this phase earlier than most, which could potentially drive their competitive edge.

Respond Now (Now – 90 Days)

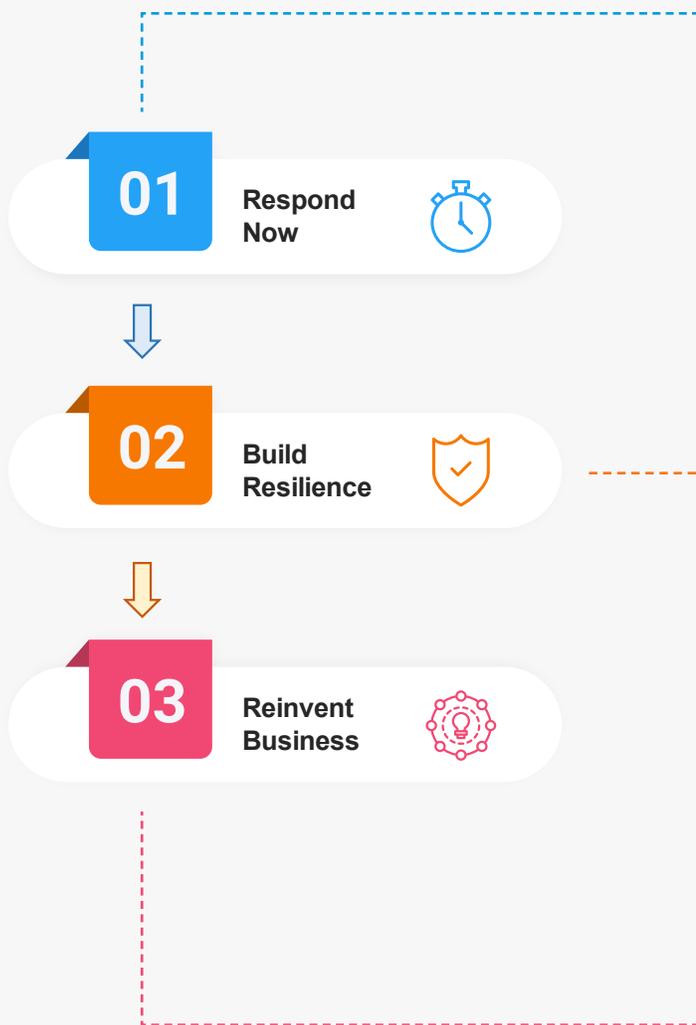
- Cash Positions
- Supply Chain Visibility
- Real-Time Simulation
- Risk Management Office
- Employees

Build Resilience (90–270 Days)

- Geographic Diversification
- Supply Chain Network Design and Simulation
- Build / Buy Capabilities

Reinvent Business (270+ Days)

- Rethink Business Models
- Pricing and Brand Loyalty
- Co-opetition



We can help.

Respond **Now**





Take a Hard Look at Cash Positions

 **< 180 Days**

Cash Window



 **> 180 Days**

- Develop cash window scenarios and modify dynamically
- Negotiate payment terms with vendors and customers
- Delay any non-essential spend
- Aggressively collect overdues
- Mobilize cash trapped to required locations
- Consider debt repayment strategies in advance
- Consider divestment of non-strategic assets

- Consider trading off payment terms for business growth
- Prepare to invest in digitization of supply chain and emerging consumer behaviors
- Evaluate build / buy of new capabilities



Enhance Supply Chain Visibility

- Only **one-third of companies know the locations of their second and third-tier suppliers**; hence, it is imperative to leverage digital SC systems to map the supply chain for critical customers and suppliers (down to Tier 2-3 suppliers)
- If information is not available digitally, **establish real-time communication formats** to increase transparency in the system
 - Communicate with suppliers to ensure adequate service levels
- Critically **monitor customer base**, especially for liquidity and potential sharp decline in demand

Shift Mindset from Reporting / Dashboards to Real-Time Simulations and Scenarios

- Build and simulate **scenarios for 60-90-120 days of recovery** to plan for the worst case; model the financial impact, especially Balance Sheet metrics, and identify actionable triggers
- Analyze lead time and critical inventories and provision augmented resources to deal with critical tasks

Establish a Risk Management Office

- Track **indicators** for demand movements, length of disruption and expected pattern of recovery
- Identify **supply constraint remediation levers** for capacity, raw materials, workforce availability, etc.
- Understand the **impact of delays** on supply and production lead-times, and inventory positions

Take Care of Your Employees

- Maintain health insurance policies to ensure COVID-19 is covered; tailor the policies to cover contract workers
- Build capabilities in leading through uncertainty, virtual teams and new ways of working (e.g., engagement, performance, collaboration, well-being)
 - Establish and communicate clear operating structure for remote work



Build **Resilience**

Consider Geographic Diversification

- Evaluate **supply chain hotspots** for future outbreak and reduce over-dependency of supply from affected areas
- Gain a deeper understanding for **Tier 2 and Tier 3 suppliers**
- Invest in **digital and real-time supply chain visibility** – Sense diverse sources to watch for potential outbreaks or extraordinary events of this nature. (For example, a volunteer organization ProMED crowdsourced the arrival of COVID-19 on December 30, 2019, which could have given enough lead time to proactive manage supply chain disruption.)
- Understand **latency of demand** between Store → Distribution Center (DC) → Manufacturers → OEMs and build near real-time visibility

Build SC Network Design and Simulations

- Build data-driven models to optimize **Balance Sheet metrics** (companies have historically prioritized P&L metrics over Balance Sheet metrics like Cash Availability and Cash Conversion Cycle)
- For networks in supply chains, **simulate stress tests**; assume panicked consumer buying behavior
- Use digitally simulated proactive mock drills to **engage customers** and gain confidence

Trigger Build / Buy Capabilities to Augment Supply Chains

- Ensure stable sourcing and movement of goods by **diversifying your supplier and distribution networks**
- Build AI and RPA capabilities into your supply chain systems to reduce human exposure, especially on a transaction level (e.g., utilizing drones and/or robots for transportation, compliance-tracking, patrolling, etc.)
- Leverage AI/ML to sense varied sources in real time and create decision making systems with a higher degree of accuracy (e.g., early warning systems, route/sourcing optimization)
- Build **adjacent product lines**. (For example, alcohol manufacturers are producing sanitizers, apparel companies are making face masks and gloves, and major automobile manufacturers are producing ventilators.)

Reinvent **Business**





Rethink Business Models Depending on Evolving Consumer Preferences

- For example, retailers and restaurants should rethink their business to build or improve upon digital customer experiences and implement rapid **last-mile delivery** capabilities. If required, build / buy capabilities.
 - Costco recently acquired last-mile connectivity company Innovent for USD \$1 billion; while this move was made “pre-coronavirus,” we certainly expect large retailers to follow suit
- Evaluate **forward and backward integrations** to build adjacent and digital capacity

Pricing and Brand Loyalty Take Different Forms

- Brands with a **stronger digital presence** may gain leverage over conventional ones; they could be potential buyout targets
- Carve out aggressive promotion strategies to gain digital presence
- Create **strategic partnerships** for digital commerce and last-mile delivery

Co-opetition will Gain Prominence

- Major disruptions like global pandemics require a united front from governments, enterprises, nonprofit organizations and multinational organizations, paving the way for **corporate social innovation**
- Heavy asset-intensive industries should look at **alternative avenues for utilization** by forging strategic alliances with governmental agencies and other enterprises



Conclusion

This is not the first coronavirus, and unfortunately, it may not be the last. In hindsight, many measures could have been taken to detect the outbreak, and avoid a global pandemic, earlier in 2020. This could have ensured minimal disruption to human lives and the global economy.

Now we must ask – what can we learn from this event to minimize disruption on such a large scale in the future, or better yet, avoid it altogether?

Supply chains play centerstage in these situations. It has already become an important board room conversation. However, a lot must be done to build digitally resilient supply chains ...

We can help.

BRISTLECONE

ABOUT BRISTLECONE

Bristlecone, the trusted partner in supply chain transformation, specializes in helping organizations create higher performing environments and deliver positive customer experiences. Since 1998, clients across diverse industries have been turning to Bristlecone for end-to-end digital transformation capabilities.

By leveraging Bristlecone's supply chain planning, procurement and execution services, businesses gain the ability to achieve unprecedented visibility, capitalize on disruption and improve overall corporate health. Bristlecone Labs, the company's innovation engine, taps into bleeding-edge technologies to build tomorrow's intelligent supply chains today. Bristlecone Product Engineering Services provides strong development expertise and a comprehensive portfolio of software experiences to bring ideas to life.

Major analyst firms rate Bristlecone among the top ten leaders in supply chain. With headquarters in San Jose, California, and 14 global hubs, Bristlecone employs over 1,800 consultants with strategic expertise in supply chain and solution development. Customizable delivery models provide flexibility and scalability, and intellectual property, proven methodologies and powerful analytics enable clients to accelerate time to value.

Bristlecone is part of the USD \$20.7 billion Mahindra Group. The global federation of companies operating in more than 100 countries caters to the automotive, sustainable urban mobility, information technology, aerospace and financial services industries.

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