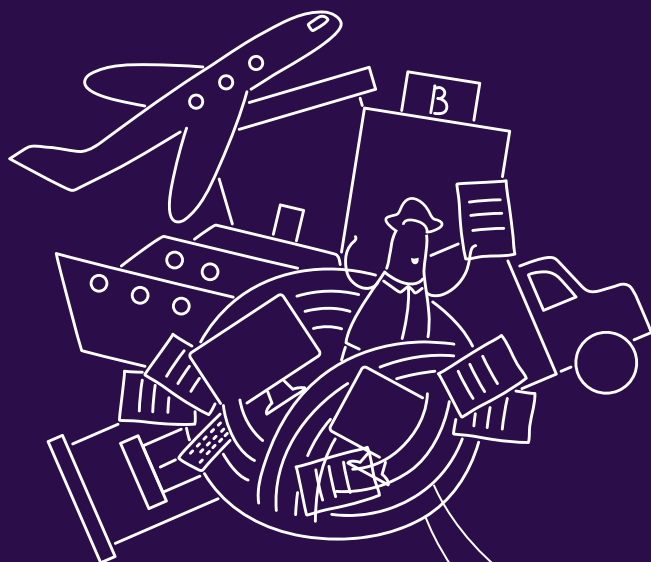# MITIGATING SUPPLY-CHAIN SHOCKS REQUIRES A SPRINT AND A MARATHON

A more resilient, intelligent supply chain provides agility and flexibility to manage disruptions

2020 has already defied all business-planning models, as the pandemic challenged just about every business and its resources. Global supply chains strained under the shifts in demands and lockdowns, exposing a lack of contingency preparedness. Companies that responded successfully demonstrated both agility and flexibility in supply-chain operations.

As the world continues to adjust, lessons learned demonstrate that manufacturing supply chains need to be more resilient to absorb impacts and minimize disruptions now and in the future. Businesses should have the right systems in place to respond and pivot to market and demand changes. The solution involves both a sprint back on track to recover and fix immediate short-term needs and preparing for a longer marathon to reinvent your supply chain and mitigate future shocks.
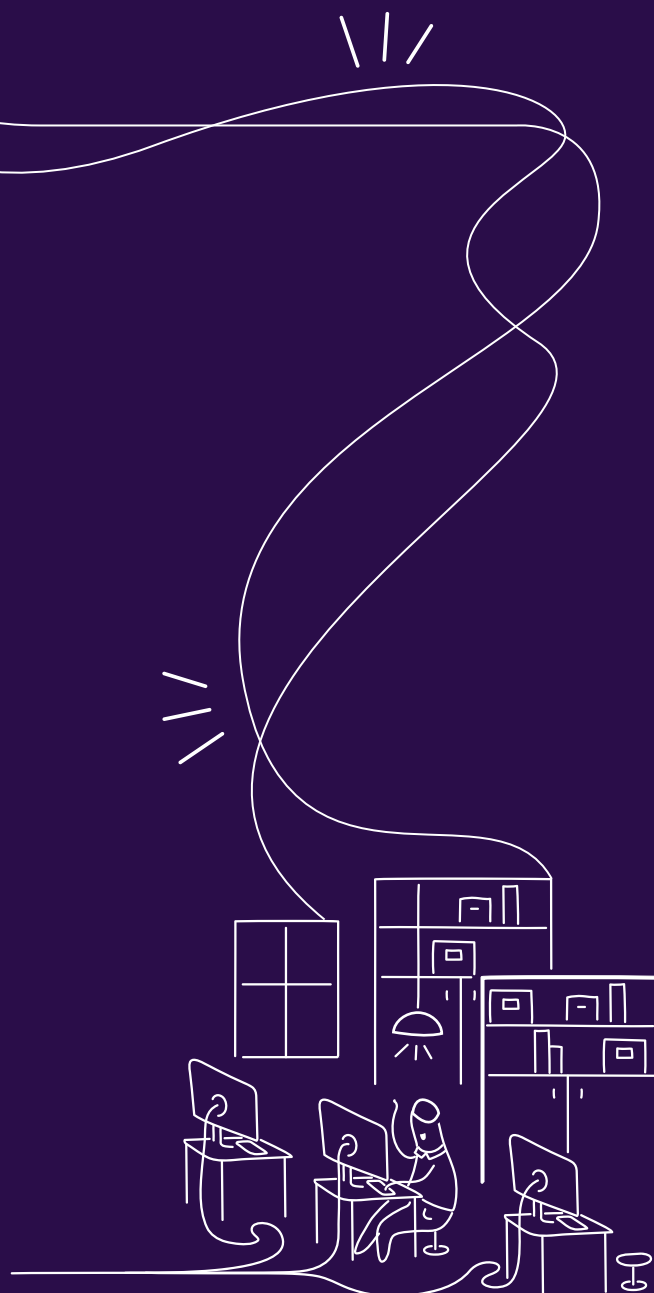
The sprint: Back on track and recovery

How full recovery looks continues to be a source of debate, but companies should review best-case and worst-case scenarios. Many short-term measures will make supply chains more resilient today but a larger change in how companies assess and manage long-term supply-chain risk is also required. The new supply chain needs to have agile operations as well as new capabilities to predict, respond, and make informed data-driven decisions to effectively navigate any future disruptions.

A central supply-chain tower is a critical component and also the best step to restart stalled operations. It serves as a single source of market intelligence and decision-making. Control towers provide agility and help remove walls and gaps between siloed functions. These towers can effectively manage multiple aspects of supply-chain operations, including demand forecasting, resource planning, supplier eligibility, and risk management. Control towers are designed to handle end-to-end complexity, eventually becoming permanent establishments within the organization.

Adapting technologies to increase visibility will also support a more flexible supply chain. Some examples include:

Digitize operations

Trade still relies heavily on paper-based processes. Elements such as physical documents or in-person requirements are open to significant disruption. Companies should create a strong digital infrastructure to eliminate physical contact. Businesses with digitized operations fare better in disruptions, especially when supported by a regulatory environment that governs electronic signatures and transactions.

Move to cloud

It is challenging for manufacturers and their partners to work seamlessly across locations and platforms. A cloud-based environment allows companies to forge collaborative networks with vendors and employees, fortifying the supply-chain ecosystem with agility and mobility by making timely data available where it is needed most.

Tools for demand forecasting

Sophisticated models and algorithms should be built to predict demand or highlight supply risks. Current statistical methods to develop demand estimates should serve as an additional tool to support these predictive models.

Optimal use of online channels

Companies that can quickly shift their channel mix should deploy more resources and increase their efforts to drive online sales.

3

Gain mobility with the right mix of infrastructure and products

Transparency in supply and demand is key for companies to respond and adapt to market changes. As we witnessed over the last few months, demand for some products and services fell, while others remained high or even increased. Companies can use their existing business capabilities, asset mix, and infrastructure to support products experiencing high demand. These new business segments could also emerge to remain integrated into the long-term product portfolio. For example, a major US cafe chain pivoted to the market need and started selling groceries to boost its sales. The firm was quick to provide online services through its website and an app, even facilitating orders to be picked up from cafe locations.

Companies that are able to exploit the dynamic nature of their business should choose an optimal asset and product mix to mitigate struggles with both cash flow and revenue generation. With the right selection of product, asset, and channel mix, companies can re-deploy their resources to seek new avenues of revenue generation.
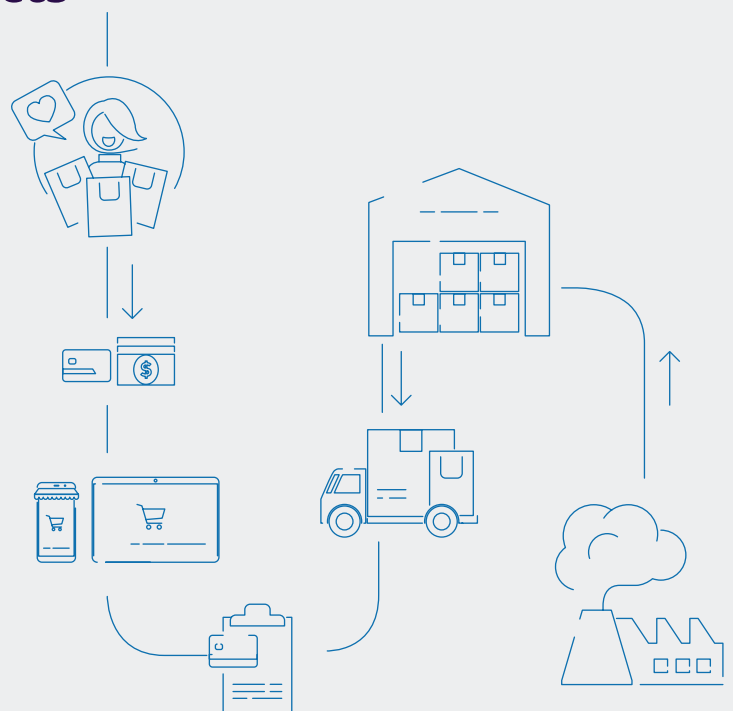
The marathon: Reinvent with a long-term mitigation plan

Short-term strategies will mitigate some of the operational risks but there is a need to devise long-term plans to respond to major disruptions. The existing supply-chain network is designed with a heavy emphasis on cost advantages.

A global sourcing model allows manufacturers to procure from locations and suppliers offering the lowest price. But these gains are often built upon a latent layer of concentrated risk from excessive dependence on one region or a small set of suppliers. A perfect long-term plan would price and set off such concentration risks against the advantages of a competitive sourcing model focused heavily on costs.

The plan should:

- Consider diversification or localization of both manufacturing and suppliers
- Develop alternative supply sources
- Augment safety stock to ensure business continuity in times of crisis
- Focus on how to increase product mix with the same level of infrastructure and platform
- Invest in supply-chain digital-twin solutions that can simulate the end-to-end scenario.

A general mistake is to focus only on supplier network and sourcing, ignoring other crucial aspects of business resilience. A broader view encompasses all areas that contribute to business continuity. While most firms have good visibility of tier-one suppliers, the view diminishes quickly after that. This issue is amplified when suppliers worry about sharing sourcing and operational information. A decentralized system using blockchain can overcome this challenge by allowing suppliers to control who has permission to see their data and under what conditions. This greatly improves supplier participation, increasing visibility for the buyer.

The time required to create a decentralized system may vary from entity to entity – having an existing infrastructure or expertise may be useful to scaling up the project rather than starting from scratch. Blockchain technology has undergone standardization in the last few years, and APIs, applications, and programming libraries now exist to accelerate set up. For instance, China launched about 20 blockchain solutions to mitigate the pandemic, including a countrywide health-tracking system for its population of 1.4 billion. Systems established with traditional databases would have required enormous processing power and taken much longer to implement.

Focus on core elements

Companies with more complex operations, products, and multi-layered governance controls need stronger proactive measures to spot and prevent disruptions. While the current market is challenging, it may be the best time to invest in tools and prediction methods to gain better agility when responding to disruptions. Building the right foundation now means better preparation for the future.

" Control towers need to become a permanent fixture in any supply chain over the longer term. "

Control towers will play an important role in driving lasting agility and business intelligence while providing the visibility needed for market flexibility. The towers will formulize tools and processes required to manage vulnerabilities and potential shock waves to the supply chain.

Beyond supply-chain planning, disruptions also impact cash flow. This should be expected to accommodate contingencies or large disruptions.

" The more intricate the operations, the more need for a detailed and long-term cash-flow planning strategy. "

Every supply chain rebound is going to be different. In some cases, companies have learned lessons the hard way. Cost is no longer the only consideration. Operations need to be agile and flexible so they can react and change in the face of a disruption. Technology can help increase visibility and agility, but the challenge is finding the right mix to create a supply chain built for both a sprint and a marathon.

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For more information, please contact:

Pankaj Mathur
Senior Consultant
pankaj.mathur@capgemini.com

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