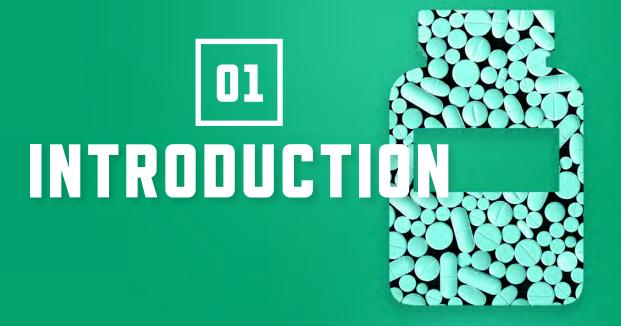


OnTarget®

by Sequoia



After decades of being taken for granted, supply chains are suddenly in the spotlight – and the pressure has been on!

In the midst of an unfolding pandemic, with vulnerabilities exposed, CPG companies are hunkering down, examining processes and business models. As consumers demand a return to seamless, on-shelf availability 24/7, the challenge is to figure out how do that, and how to build long-term agility and resilience into value chains, so they can adapt to future disruptions and channel shifts.

The focus on value creation and the strategic importance of the supply chain has intensified. For many, the strategy has been to channel resources into preparing for acute risk, and realigning manufacturing resources to support a "just in case" inventory model. Doomsday prepping for the next crisis.

From where we stand, prioritising *chronic* risks is the better response. It ensures both your supply chain and your business run smoothly and efficiently, giving you the headspace and the oversight of all your inventory to deal with acute events as they arise. When enabled with enough data, chronic risk management sets you up to embrace new opportunities for innovation, growth, and competitive advantage.



THE STATE OF SUPPLY CHAIN



There was a time when, for most consumers, supply chain was an assumption – because it worked.

Then came the pandemic – the greatest peace-time disruption to supply chains we've seen. Supermarket shelves were suddenly barren. Cashed-up consumers couldn't buy new cars. Building contractors didn't have timber for people's houses. Supply chain became visible. It changed from a business function into a headline.

"Supply chain warnings intensify", says the Financial Times. Moreover, supply chain disruptions are now holding back the recovery² with hundreds of container ships stuck as global bottlenecks grow³.

Reuters Business asks, hopefully, "is the worst over?4" CNN says, "The global supply chain nightmare is about to get worse5".

The last two years have been a perfect storm of disruptive events, starting with COVID-19 induced port disruptions and shortages of raw materials, containers and drivers. Add Brexit into the mix for Britons, the blockage of the Suez Canal, crop and harvest failures,

escalating consumer demand in lockdown – and businesses are realising how delicate their supply chains can be.



94%

of Fortune 1000 companies are seeing supply chain **disruptions from COVID-19**.



75%

of companies have had **negative** or **strongly negative** impacts on their businesses.⁶

We've seen interruptions affect corporate earnings and growth, impact international trade, frustrate consumers and smash confidence. We'll continue to see uncertainty and macroscopic changes in markets – it might take years yet to restabilise. We believe supply chain effects will likely be with us until the end of 2025.

But throughout the chaos, the wheels have kept turning.

^{1.} https://www.ft.com/content/abe672e8-43d4-451d-aa70-f01927dd70c2 2. https://www.ft.com/content/84c2555b-68f0-4654-bb73-d1b995d45bc2

^{3.} https://www.ft.com/content/5341d046-7206-47aa-a919-a8d4e3d82d5b 4. https://www.reuters.com/business/global-markets-supply-pix-2021-11-03/

^{5.} https://edition.cnn.com/2021/10/12/business/global-supply-chain-nightmare/index.html

 $[\]textbf{6.} \ \text{https://www.accenture.com/au-en/insights/consulting/coronavirus-supply-chain-disruption} \\$



It's "remarkable", says the OECD – the speed with which supply chain actors reorganised themselves to ensure the continued availability of food, at least in the developed world.

Geoff Freeman, president and CEO of US-based Consumer Brands Association believes the CPG industry met unprecedented demand by being unafraid to change the game "This industry has been nimble, creative and essential to pandemic response," Freeman says.

That nimbleness started with increasing factory operating hours and employees. One flour mill in the UK⁹ hired enough staff to start operating seven days a week, so they could produce an extra 350,000 bags of flour a week. Producers also offered incentives for employees to stay. Retailers mounted massive recruitment drives,¹⁰ from Aldi to Tesco.

On top of those responses, businesses have taken a number of extraordinary decisions to keep products on the shelves.



 $^{7.\} https://www.oecd.org/coronavirus/policy-responses/food-supply-chains-and-covid-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-71b57aea/2012-19-impacts-and-policy-lessons-and-p$

^{8.} https://consumerbrandsassociation.org/industry-impact/the-cpg-post-pandemic-outlook/

 $^{9. \} https://www.bbc.com/worklife/article/20200401-covid-19-why-we-wont-run-out-of-food-during-coronavirus$

^{10.} https://www.bbc.com/worklife/article/20200401-covid-19-why-we-wont-run-out-of-food-during-coronavirus



Rationalising SKU range down to most popular products is one tactic employed during COVID-19. It reduces the variety of raw materials required, prevents costly changeovers for manufacturers and accelerates the processing of orders. It also streamlines inventory management for retail customers.

Frito-Lay temporarily culled about 21% of its SKU portfolio¹¹ to keep its supply chain as efficient as possible, according to Laura Maxwell, senior vice president of supply chain for PepsiCo Foods North America. Fellow snack brand Utz eliminated 85 of its "Foundation SKUs" Mondelēz reduced its SKUs by 25% making space available for their highest-volume items with a view to improving sales.

Supply chain is now central to C-suite conversations about company goals and targets, says Tom Madrecki, vice president

of supply chain and logistics for the Consumer Brands Association.

"Post pandemic, executives have felt empowered to make the case for investments that improve product flow," he says. These may include technology investments like applied analytics, artificial intelligence and machine learning models to increase efficiency, reduce complexity and optimise their SKU portfolio.

Percentage or number of SKU ranges temporarily culled or reduced







^{11.} https://www.supplychaindive.com/news/frito-lay-supply-chain-simplification-SKUs-demand-planning/603241/

^{12.} https://seekingalpha.com/article/4414907-utz-brands-inc-utz-ceo-dylan-lissette-on-q4-2020-results-earnings-call-transcript

^{13.} https://www.supplychaindive.com/news/mondelez-supply-chain-pandemic-coronavirus-SKU/582578/

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TOM MADRECKI
VICE PRESIDENT OF SUPPLY CHAIN
AND LOGISTICS FOR THE CONSUMER
BRANDS ASSOCIATION.



Supply Chain decision making has always been pretty rapid.

When the pandemic struck, it moved up two gears in most companies: within days, they had delisted minor SKUs, shut down every other line (to maintain social distancing), ordered temperature gauges (to check for worker fevers), relocated inventory (in case it became trapped in a lockdown) and formed plans to restore capacity using screens, visors and one-way systems.

As successive waves hit, decision making became even better and more structured – until many companies had effectively built the foundations of a Sales and Operations Execution (S&OE) process: trapping and classifying events as they happened; forming ad-hoc cross-functional teams as needed; and recording and tracking progress as problems were solved and events ticked off.

These capabilities need to be sustained. S&OE is the crucial, short-term cousin of S&OP. It facilitates reaction to the unforecastable – but mitigates overreaction to noise. If this can be sustained, companies will be all the better for it.





Increased communication and collaboration between retailers and their CPG suppliers has been essential in the pandemic.

McKinsey describes how "category captains" in important categories held daily meetings with strategic suppliers 14 to work on securing supplies of essential high-demand items during COVID-19.

In a UK research paper¹⁵ on operations and supply management during COVID-19, the authors outline how the pandemic made supply chain partners even more aware of their mutual interdependence. In their view, it highlighted the strengths of collaborative, value-driven and sustainability-focused management approaches. Buyer-supplier relationships were described by Marks & Spencer's head of procurement, logistics and supply chain as "pop-up cooperatives", sharing a common goal of coping with the crisis.

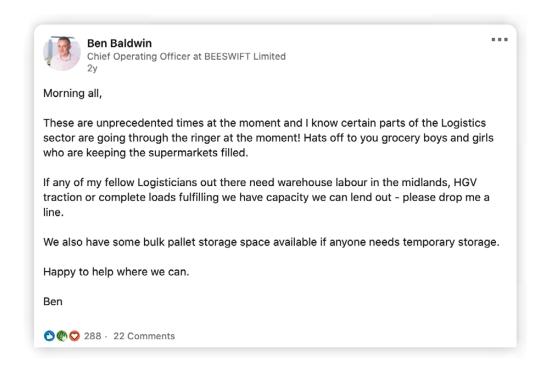
The authors also noted that buyer-supplier collaboration has been associated with company and supply chain performance for a long time.



COLLABORATING OUTSIDE OF YOUR CHAIN

Early in the pandemic, it was not uncommon to see manufacturers sharing transport, with companies offering up their spare capacity. There's a great example in Beeswift¹⁶, a PPE and workwear company.

We've also seen retailers co-operating with each other to get products on shelves. For instance, retailers of nondiscretionary goods met their demand spikes by taking up the underutilised fleet capacity of discretionary goods retailers¹⁷, whose demand was tailing off.



07. COLLABORATING OUTSIDE OF YOUR CHAIN

These kinds of initiatives were helped along by the relaxation of competition laws¹⁸ in the United Kingdom, which encouraged supermarket chains to cooperate and share transportation resources and depots.

With sales at restaurants and food service outlets declining, and consumers stocking up on groceries and supplies at home instead, another strategic move was directing resources from the hospitality sector into retail.

Supply chain actors also explored new delivery methods such as click and collect services and online sales. Wholesaler Brakes is a case in point. After having its hospitality sales wiped out by the pandemic, Brakes opened a home-delivery/call-and-collect service called 'Food Shop', with a range of more than 6000 products sold direct to consumers from trestle tables set up outside their warehouses.

Not to be outdone, retailers portioned flour locally¹⁹ out of industrial-sized sacks, as home baking took off and retail demand for flour exploded. And small independent flour wholesalers in the UK stepped up when the bigger players, who traditionally supply large sacks to commercial bakers and restaurants, couldn't re-tool production lines for smaller flour bags.

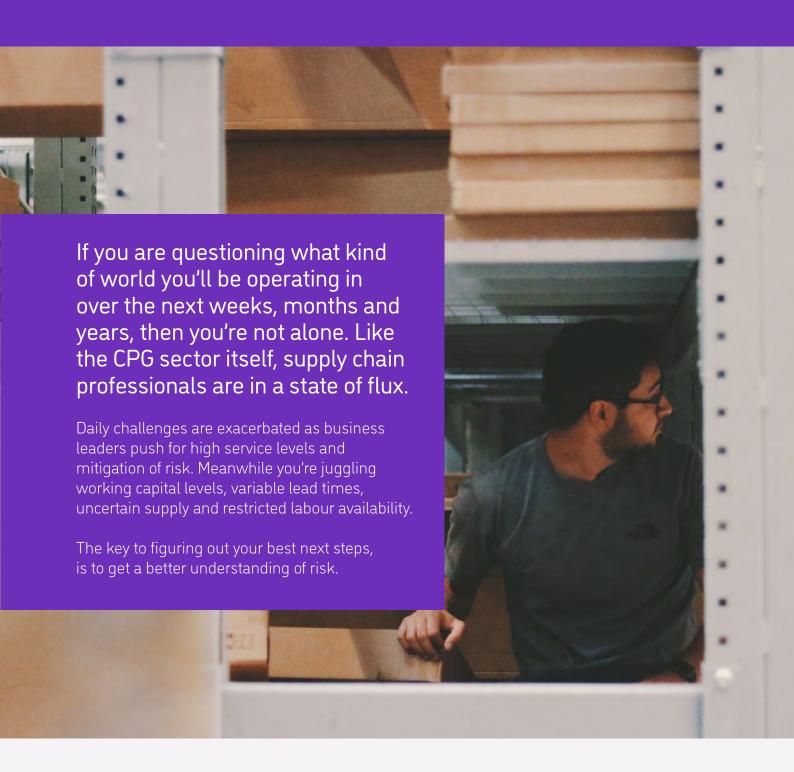


18. https://www.gov.uk/guidance/competition-law-exclusion-orders-relating-to-coronavirus-covid-19

^{19.} https://www.nbcnews.com/news/us-news/grocery-stores-are-portioning-out-flour-industrial-sized-bags-deal-n1192156



WHAT COMES NEXT?





Supply chain risk ranges from frequent but mild (chronic) to rare but serious (acute).

Humans aren't very good at intuitively assessing risks, largely because we are prone to assess risk emotionally²⁰. We have unconscious bias lurking in the background, shaping our perception of risk, as well as hindsight bias - after a crisis, people tend to overestimate the probability of such an event happening again.

The upshot is, we underestimate chronic risks - those familiar, clear and understandable risks. And we overestimate acute risk - from things that are unfamiliar, hard to understand, invisible, involuntary and/or potentially catastrophic. Like, for instance, a nuclear meltdown caused by an earthquake, followed by a tsunami, as happened in Fukushima, Japan in 2011.



The death toll from the Fukushima tsunami was horrific – over 18,000 people died and entire towns were destroyed. There were hundreds of subsequent deaths due to the stress of the evacuation process, which affected 150,000 people. These numbers are often conflated with the one direct death from the Fukushima nuclear power plant accident.

This conflation has directly influenced policy around the globe, including Germany's decision to progressively shut down its nuclear power industry. So far Germany has reduced the nuclear proportion of its power generation from 25% to around 12%.

Nuclear power has many negative emotional triggers, whether from real-life disasters or dramatizations in Oscar-winning films. But the statistics on deaths caused by nuclear versus other kinds of power generation tell a different story.

Now statistics show that Germany's nuclear power reduction is causing 1,250 premature deaths every year – mostly through the chronic effects of air pollution caused by burning coal.

Our human biases make us instinctively worry about the rare acute risks – the ones we can't really control. Instead of the frequent chronic risks, which are often supported by readily available data and much more within our sphere of influence.

Fortunately, numbers come to our rescue here. Statistical maths and risk analysis enable us to numerically and objectively assess exposure to risk and to weigh the economics of mitigation.

Energy source	Deaths per terawatt-hour
Biofuels	<0.01
Biomass	4.63
Brown coal	32.72
Coal	24.62
Gas	2.82
Hydropower	0.02
Nuclear	0.07
Oil	18.43
Solar	0.02
Wind	0.04

The Fukushima nuclear accident caused one direct death and an estimated 573 deaths from the stress of the unnecessary evacuation. Germany's consequent shutdown of nuclear power plants has caused an estimated 7,000 premature deaths - and counting.²¹

^{21.} The Sequoia Partnership



A business continuity plan, founded in a risk-based assessment process, is essential for any CPG company. If you can involve functions across your organisation in collaborating in that risk analysis – from production, commercial and procurement, to finance and legal – and secure their buy-in on the strategic decisions that flow from it, you're already winning.

It's inevitable, after COVID-19, that your continuity plans will include a detailed response to acute events. However, mitigating acute risks is rarely justified economically. The investment cost of mitigation (from extra stock to more expensive capital equipment) accumulates while you're waiting for the risk to materialise. It's likely to outweigh the cost of simply responding to the risk when (and if) it occurs.

Meanwhile, underestimating chronic risk costs businesses billions of pounds every day, through a combination of factors:

- Companies holding too much or too little inventory in the wrong places
- Unnecessary chopping and changing of supply chain production lines to compensate for self-induced stock problems
- Poor service leading to sales losses
- Bleeding away market share when customers and consumers seek out substitute products



Any well-considered continuity plan is going to include preparation for extreme weather events – if not yet, then soon.

Whether judged from a human mortality perspective²², or from GDP loss²³, disruptions from climate change will match - if not eclipse - the pandemic in terms of supply chain impact. And no sector is immune.

The obvious impacts on manufacturing assets from floods, fires, hurricanes etc. are only the start. Secondary repercussions include a migrating workforce²⁵ and political instability, crop yield declines, water shortages, the need to retrofit infrastructure - even people prevented from physically getting to work.

Whether shaped by legislation or crisis, the way supply chains operate will be fundamentally challenged as the drive to net zero becomes more and more urgent. With investors, employees and customers all more focused on environmental impacts, sustainability will inevitably be built into supply chain practices over time.



Probability of a hurricane of sufficient intensity to disrupt semiconductor supply chains - may grow 2 to 4 times by 2040.



Probability of heavy rare earths production being severely disrupted from extreme rainfall - may increase 2 to 3 times by 2030.²⁴

LESSONS FROM THE PANDEMIC RESPONSE

Thankfully, the threat to supply chains has jolted people at all levels of organisations into recognising how far-flung, complex and integrated their supply chains have become. And how little transparency they have end to end. (As a side note, firms which had already invested in creating more visibility in their supply chain seem to have fared better in the pandemic, according to OECD²⁵.)

Collaboration, information sharing and visibility, reduced complexity, local supply – all these factors need to be modelled and assessed as part of a business-wide plan. While there will always be a temptation to focus on acute risks, it's getting on top of chronic risks that will allow supply chain professionals to model and assess scenarios and define responses; to determine what to actively manage or change now, and know the trigger points for action on risk.





Gaining control of chronic risks reduces your firefighting load and frees up your team to focus further ahead, to understand both current risk profiles and how those may change in the future. But it relies on intelligent use of supply chain data. To that end, OnTarget® from Sequoia uses state-of-the-art algorithms to optimise inventory policy and protect businesses against economic loss arising out of chronic risk.

Of the various data platforms available for supply chains, OnTarget® is unique in that it presents planners and other supply chain professionals with the critical data all in one place. It truly empowers them with new understanding and visibility.



13. DATA TO THE FORE

OnTarget® also helps to identify acute risks – feeding a structured response process (S&OE) but also helping to prevent over-reaction (which leads to more firefighting). Having well-established, data-led business processes to manage acute risk will increase the speed and confidence in decision making in these pressured situations.

With supply chains in the spotlight globally, your team may feel the pressure from stakeholders and shareholders to show you have a plan to deal with the next big event.

They will be looking to you for reassurance that your supply chain has the agility and resilience to weather the storm of uncertainty.

A combination of efficient management, mitigation of chronic risk, and proper assessment of acute risks, with appropriate business continuity plans in place, is the key to inspiring that confidence.

THEY WILL BE LOOKING TO YOU FOR REASSURANCE TO WEATHER THE STORM OF UNCERTAINTY.



OnTarget® by Sequoia

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