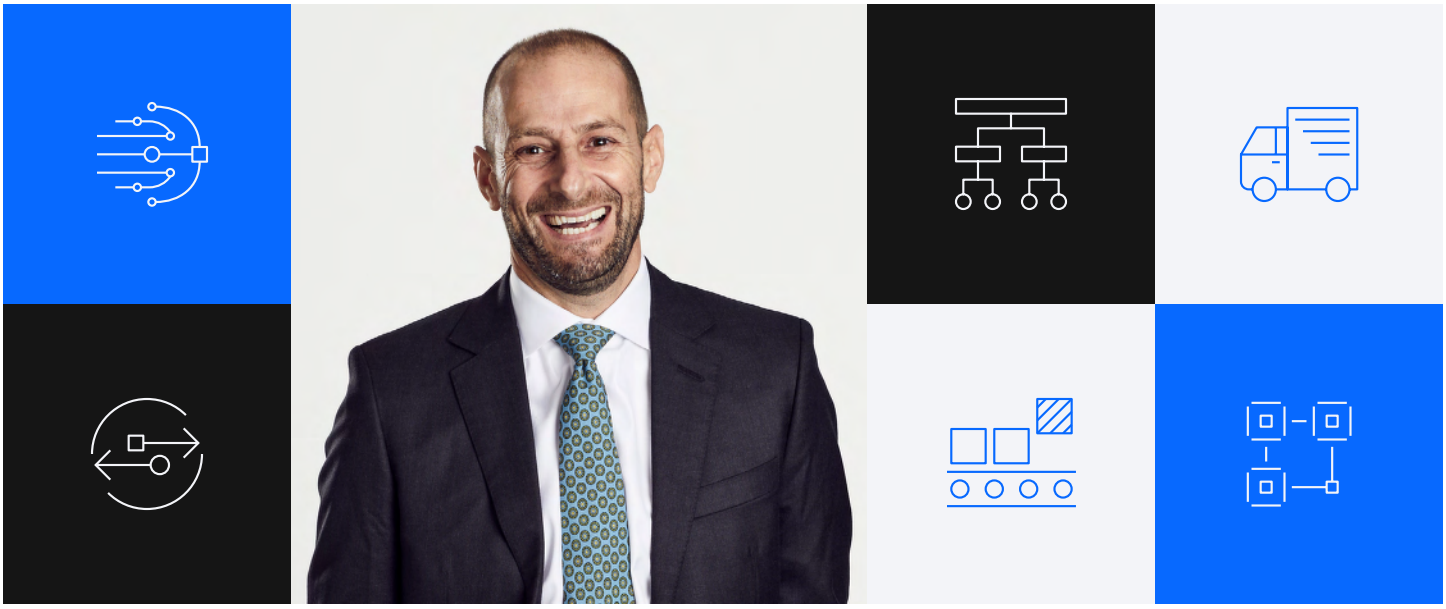
Supply Chain

Smarter Supply Chains Drive Efficiency, Agility and Resilience

Intelligent workflows reimagine modern supply chains, breaking down silos to overcome challenges and create new realities



This Q&A is part of the Built for Change Perspectives series that is exploring trends in business transformation. To learn more, go to IBM.com/smarter-business

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Q: How is the disruption of 2020 changing the way organizations manage their supply chains?

A: In the transformative six-month period we've seen, it's the first time in living memory when we've had both a supply and demand shock at the same time. The supply shock started with the lockdown in Wuhan, and the demand shock was caused by the lockdowns that occurred country by country, dramatically impacting consumer spending across industries. That created more disruption and highlighted more cracks in the supply chain than anything we could ever imagine. And it's caused us to reimagine what the supply chain of the future looks like.

Remember from a supply chain perspective, things had been relatively stable for the past 30 years. This allowed us to do things like demand-plan based on last year; what happened yesterday was a good indicator of what will happen tomorrow. Now, that's changed. We're in a period where what happens tomorrow depends on many drivers, including whether you're in lockdown and what stage it's in, if the kids are in school, and dozens of other factors that have a material impact on demand and supply signals. So, all the beliefs around the way supply chains should be run are being challenged, because the future doesn't look like the past. Right now, that future looks very volatile.

Q: How are new models for enterprise workflows making supply chain management more fluid and flexible?

A: The old workflow models were built during long periods of relative stability. Over the last few decades, work in supply chain management—and just about every other aspect of business—has been siloed around specific processes with a separation of duties. Typically, each person hands over its work to another part in a series, and the organization has little visibility over the entire process.

Now, driven by maturing technologies and the disruption of 2020, we're transforming supply chain management to bridge those silos and optimize the entire end-to-end workflow, as opposed to using handovers. Organizations are asking, "Instead of silos, why can't we put a platform in place and make sure that we're all working off the same data and info, so we can work much more effectively and efficiently?"

Enterprises should be looking to reimagine their traditional workflows to create Intelligent Workflows, which combine process improvement best practices and exponential technologies like AI and blockchain. These Intelligent Workflows break down silos and functional boundaries, increasing speed, agility and resilience – as well as end-to-end visibility.

Q: What will the supply chain of the future look like?

A: The future supply chain will be highly driven by exponential technology to build intelligent workflows. I think we're heading into a wave of hyper-automation and hyper-investment in supply chain. Clearly, the pandemic taught many organizations that they've underinvested in supply chain technology. And we've seen how they've responded through blood, sweat and tears. We're beginning to see a big wave of investments in the supply chain space around technology, transforming work processes, differentiating demand and supply planning, and greatly improving visibility back into your Tier 2. I think that wave will continue and grow.

Now that we're dealing with such volatility, you simply have to be much closer and more connected to your supply chain to understand your exposure. So, over the next decade, we'll see increased focus on optimizing the network around demand and supply, which is good news in terms of sustainability, reducing risk exposure and lead times.

Q: Can supply chain management truly be a point of differentiation?

A: Yes. Demand sensing is a good example. The leading supply chains of the world will be highly focused on demand sensing. At IBM, we're using a process we call Continuous Intelligent Planning to get closer to the real demand signal. For example, we have the ability to understand exactly what's driving the behavior of buyers in a specific zip code around a particular SKU, at any given moment. You can ask, "What are people buying right now?" which again, depends on the drivers I mentioned—like if they're in lockdown and if schools and businesses are open—and many others, including the weather. Being able to analyze all that data in real time and use an algorithm to say, "This is why we sold 20,000 SKUs today in this zip code," is powerful. It lets you predict tomorrow and the next day. Having such a sharp demand signal arms you with invaluable information that you can drive back into your manufacturing and supply chain.

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In fact, organizations that recognized early on that supply chain was their point of differentiation have already started the transformation journey—because they've been getting a bigger share of the wallet from the CFO. And I think that's critical. For many years, organizations have struggled to get investment dollars for supply chain. Those dollars have gone to customer-facing functions, like marketing and branding. In 2020, I think organizations finally realize that supply chain is the heart of their operation, period.

Q: What technologies are proving to be the real game changers in supply chain management?

A: We are seeing a convergence of what I call next-generation technologies maturing at the same time. Artificial Intelligence, automation and blockchain are all coming together in cloud-based environments to form intelligent workflows—which are automated, agile workflows that cut costs, increase productivity or improve the human experience. In fact, these technologies helped many clients get through the initial COVID-19 challenges by driving more aggressive analytics. For example, one retailer got ahead of its competition by having an earlier warning that family packs of household items, such as snack products, were suddenly in demand as consumers shifted from buying singles on the way to work to family packs to consume at home. So the retailer bought up a whole lot of family packs instead of single packs.

Modern supply chain management means using AI, automation, blockchain and other technologies to create intelligent workflows that can manage the complexities of a demand shock and a supply shock—and the potential for either to happen at any time.