

The autonomous supply chain – challenges, benefits, and the road ahead

Supply chain challenges and the extent to which they have been complicated by current pressures are driving organizations to transform their supply chain, standardize processes, and integrate them end to end.

It's sometimes said that if the human brain were simple enough to fathom, we would be too stupid to understand it. Much the same can be said of the supply chains of major enterprises: if they weren't complex, if they didn't accommodate layer upon layer of variables, nothing much would ever work.

But that doesn't mean they can't be streamlined and made smarter. The goal is what we at Capgemini call the [autonomous supply chain](#) – an integrated, frictionless, and customer-centric supply chain function that delivers cognitive, touchless operations and [transparent data-driven decision-making](#).

In this short series of articles, we're going to look at the characteristics and benefits of this approach, at the current climate for its adoption, at critical success factors, and at the support an external services provider can give.

But first, we're going to consider the supply chain challenges organizations typically face, and the extent to which they have been complicated by current pressures.

Typical challenges...

It's the relationship between things that makes supply chains so complex. It's not just the flow through raw materials, to sub-assemblies, to finished goods – it's the recognition that these physical elements are influenced by finance, by marketing, by human resources (HR), and by many other

factors. The links between these different elements may not be transparent, and indeed, in some cases, the links may not have been made at all. What's more, some of the processes may still be conducted manually. In a [recent report conducted for Capgemini by NelsonHall](#), 66% of the supply chain leaders surveyed said their levels of manual processing were high.

There are a number of consequences to this. For a start, things don't flow as they should, and information is siloed and has to be shared by email. This is cumbersome and slow, which impacts overall responsiveness and resilience. The lack of centralization and consolidation leads to high costs, poor productivity, difficulties with governance, and an inability to scale across the organization.

A further challenge is that in a very competitive industry, with new, digital technologies, it can be hard to find or develop the right talent, and also to sustain it.

At the same time, customer expectations have continued to rise. People are growing accustomed to variety of choice and also to speed of delivery, and the best practice of trail-blazing providers is raising the bar high for everyone else

... and current pressures

Even at the best of times, all these factors would represent a significant set of challenges for enterprise-level supply chains. But as we all know, these have not been the best of times. International trade has been subjected to disruptions



including import restrictions, increased tariffs, and Brexit – and on top of all this, we have had the global and [seismic effects of the COVID-19 pandemic](#).

As a result, supply chains have been stress-tested beyond levels anyone could reasonably have expected, and many of those inadequate and often manual processes we just observed have been stretched and found wanting. It's no wonder, therefore, that we are seeing a greater and more urgent determination to bring digital transformation to the supply chain, to standardize processes wherever possible, and to integrate them from end to end, as part of what we at Capgemini call [the Frictionless Enterprise](#).

Indeed, in the survey conducted as part of the NelsonHall report, almost two-thirds of respondents said they sought a greater ability to adjust to global trade volatility (64%), and a

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similar proportion (62%) said they needed greater flexibility and scalability to adjust to constraints on their capacity.

Looking ahead

In the next article in this series, we'll take a look at how the [autonomous supply chain](#) can address these needs. We'll outline its principal characteristics, and summarize the benefits it can bring.

To learn more about the autonomous supply chain and its role within the Frictionless Enterprise, read NelsonHall's full report "[Moving to an Autonomous Supply Chain: An Essential Guide for Manufacturing & CPG Firms](#)."

Read the "[Fast Forward: Rethinking supply chain resilience for a post-COVID-19 world](#)" report by the Capgemini Research Institute (CRI) to understand how you can future-proof your supply chain for a post-COVID world.



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