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You've been hearing about "the supply chain of the future" for years. How it will provide end-to-end visibility. How it will self-manage customer inventories. How it will need only two employees, a man, and a dog: the man to feed the dog; the dog to prevent the man from touching anything.

And now, in the Transformative Age, such a state-of-the-future supply chain has become vitally important. Disruptive technologies such as machine learning, the Internet of Things and blockchain are leading to super-fluid markets: fast moving, fast changing and frictionless.

To thrive in this environment, companies need supply chains that operate as holistic ecosystems. And you can have that now—we can finally deliver what we've been talking about for years.

So if you are planning a reinvention of your supply chain, here are five criteria for gauging whether it is (or will be) the future-ready supply chain you need.

It's Agile

Agility starts by aligning business strategy and supply chain strategy. The supply chain must be able to support the agility requirements of your business, with adaptation for everything from evolving customer needs to changing constraints on the supply side. It's all about immediacy, responsiveness and hyper-accurate anticipation.

This requires unprecedented levels of change, including:

- Data analytics-fueled supply chain segmentation based on various customer groups
- Operating-model change so the organization can fulfill new business models while responding at the speed of changing marketplace conditions
- A supply chain intelligence layer that guides and enhances the actual performance of the supply chain in real time

It's Cognitive

The intelligence layer for supply chains is a mosaic of advanced technologies. But it requires far more than adding machine learning, blockchain or additive manufacturing (3D printing). It's about orchestrating emerging technologies and members of your ecosystem to move in lockstep. And then putting it all under the watchful eye of an end-to-end "control tower" that encompasses everything from planning and supply through logistics and customer service—to provide stellar exception-based or event-based management.

When your supply chain is cognitive and draws on the power of the ecosystem, it reveals correlations that no human can see. And it learns exponentially. This is what can create the delta between you and your competitors.

It's Autonomous

Imagine this scenario. A hurricane hits the southeastern US. It knocks out critical suppliers and it devastates your transit hub. What do you do? With an autonomous supply chain, you watch it do what needs to be done—instantaneously. It acts on real-time data. It automatically puts orders through to your hierarchy of backup suppliers and to dispatch, and to your network of warehouses. There is not much of a blip in downtime in your operations.

Or suppose that there's a sudden spike in customer demand. How do you scale? "You" don't have to: everyone in the supply chain sees the spike at the same time and can work on it simultaneously. It's coordinated through a communications network that automatically updates the entire ecosystem so that everyone knows how each player is responding and can adapt as needed.

A new tariff is announced? Your supply chain adjusts for tax optimization. An unexpected exception occurs? Your supply chain may even reach out to a competitor to provide a mutually beneficial response since it enables hybrid forms of cooperation and competition as different entities in market networks play multiple roles in an ecosystem. And it all runs on auto-pilot. After all, if we can have self-driving cars, why not "lights out" planning?

It's Resilient

Resilience is an over-used term, but that doesn't make it any less essential. The fully reinvented supply chain leverages risk intelligence and related mission-critical technologies to contain and avoid most unexpected or fast-breaking disruptions, whether natural or man-made.

And the response is appropriate to the nature of the event, in both scale and resources tapped. The supply chain responds to operational impacts and will provide a quick return to normal functioning once a disruption is considered ended.

It's Flexible

The global supply chain requires thinking beyond traditional talent pools. It must accommodate such disparate factors as labor-law regulations, cultural norms, virtual teaming and matrixed environments. This requires a business-as-unusual approach. You need a highly (and differently) trained, flexible, data-driven workforce, from senior executives to the hourly associates.

It requires leaders who both understand and embrace the "fail small/fail fast" ethos of innovation. Who create incentives to reward new, more productive behaviors. Who embody the tenets of agility, recognizing that cultural, generational and technological differences impact the way in which employees contribute to individual and collective success.

Yes, the fully reinvented supply chain is both a product of, and catalyst for, all that. A supply chain built for the Transformative Age provides an immediate and compounding edge, enabling you to continually put distance between yourself and your competition.