ARCHI TEC TING

THE 2025 SUPPLY CHAIN

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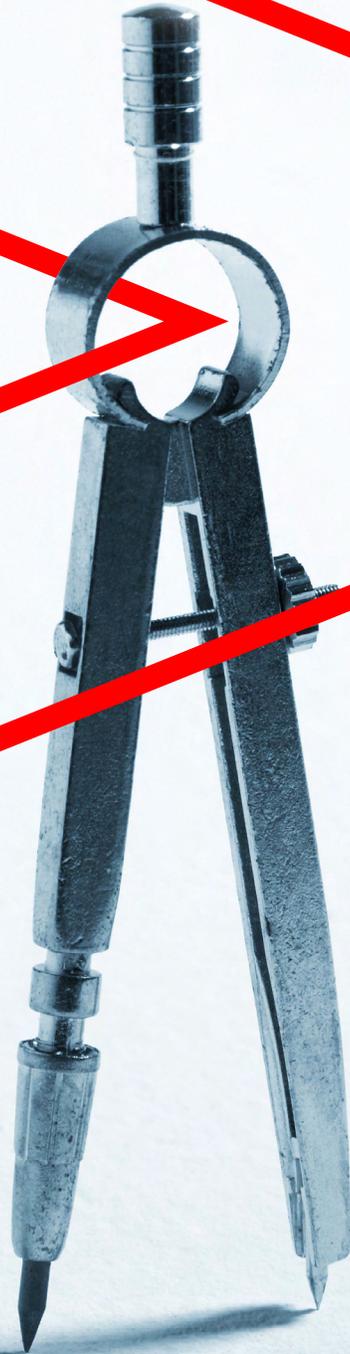
As companies struggle to deal with competitive pressures, technology change and an ever-expanding range of customer requirements, corporate leaders are paying more attention than ever to their supply chains. In too many cases, that scrutiny reveals supply chain design and execution that barely meet today's business imperatives, much less imperatives that will arise over the next three to five years.

Accenture Strategy believes that deep, fundamental shifts are underway, especially when it comes to rising customer expectations. (See "Tectonic shifts for the supply chain.") Customers want products in their hands faster and faster, and they increasingly expect a more tailored or personalized experience. Supply chains that currently only sell vanilla will need to offer more flavors.

Over time, operating in this environment will require an entirely new way to architect and manage supply chains—an architecture than can evolve as marketplace needs evolve. To succeed in the coming years, companies will need new supply chain configurations across a broader ecosystem, new roles and skills, and new technologies.

TECTONIC SHIFTS FOR THE SUPPLY CHAIN

The ground is moving beneath the feet of supply chain executives because of emerging technologies and ever-intensifying marketplace demands:

Operating a company's own assets

Designing a network of shared assets

Aiming for functional excellence

Architecting end-to-end solutions
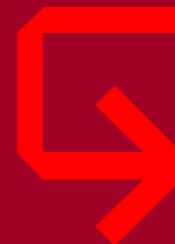
Relying primarily on human brainpower

Relying on intelligent technologies

One size fits all

Real-time, dynamic segmentation

THE RIGHT SUPPLY CHAIN FOR THE RIGHT CUSTOMER

New Accenture Strategy research finds that supply chain executives clearly see the trajectory of change. For example, 76 percent of executives surveyed see the top-two customer demands of the future as, "more customized products and services" and "faster order fulfillment times."[1]

To meet those demands, 79 percent of executives believe that supply chains need to become "fit-for-purpose," based on the value proposition for a particular customer segment. And 85 percent agree that each customer order will dynamically activate a specific set of nodes in real time to best meet the order requirements.[2] It all sounds good, but too many companies are moving too slowly in making it happen.

Succeeding in tomorrow's marketplace will require multiple supply chains that will respond to multiple, dynamic customer segments to meet a higher percentage of requirements in an increasingly tailored fashion. (See "Driving more sophisticated service and customer segmentation.")

DRIVING MORE SOPHISTICATED SERVICE AND CUSTOMER SEGMENTATION

Supply chain leaders are already working to respond to a more varied set of customer requirements through better, more detailed and even live segmentation. Consider one consumer packaged goods company whose supply chain was based on a traditional, one-size-fits-all model. As part of its strategy to stay ahead of its primary competitors, the company wanted to create a supply chain that was more customer-centric and responsive—with capacity flexibility, short order-to-deliver lead times and fast response to daily demand signals.

More granular segmentation was key to achieving this goal. The company first clustered customer channels according to requirements, and defined service portfolios for each channel. Then it considered the implications and defined a new set of supply chains. After assessing required capabilities by supply chain, the company could design a new operating model and transformation roadmap to make it all happen. As a result of this work, the number of distinct supply chains went from two to five, with more to come. Over time, companies like this one will be able to dynamically increase or reduce the number of their supply chains to accommodate constantly evolving customer segments.

MAKE IT ASSET LIGHT

Most companies will not have the scale and expertise to manage a more complex supply chain environment using only their own supply chain assets. They will need to leverage an asset-light network that enables them to be flexible and timely in a cost-effective manner. That means that, instead of looking internally and only optimizing their own assets, companies will connect with an ecosystem of third parties to access shared assets, thus building more responsive supply chains. Individual customer orders will be fulfilled by whatever combination of partners best meets the service requirements at the time of execution.

Seventy-nine percent of the supply chain executives we surveyed agree that future supply chains will be flexible and asset light. And 84 percent say that they will increasingly use distributed manufacturing networks to meet customer demands.[3]

The sharing of supply chain assets will be accelerated by the emergence of digital platforms across manufacturing, warehousing and logistics. For example:

> A collaboration among UPS, SAP and Fast Radius offers seamless, on-demand manufacturing, from order to manufacturing and delivery. Customers' 3D printing orders are placed on the Fast Radius website and can be shipped as quickly as the same day.[4]

> Flexe connects companies in need of flexible warehouse storage with businesses looking to monetize their underutilized warehouse space.[5]

> A number of companies have created freight brokerage platforms that match shippers with carriers to improve truckload utilization and accelerate shipping times. Leading platforms include DHL's Saloodo!, Freightos, Convoy and Loadsmart.[6]

HELP WANTED: SUPPLY CHAIN ARCHITECTS

To develop and manage an asset-light supply chain, a new role will be created: the "supply chain architect." People in this role will work to configure multiple, unique supply chains. Instead of the traditional linear and one-way mode of value creation—design, plan, source, make, fulfill and service—architects will use a continuous and multi-directional mode: configure, operate, connect and manage. (See Figure 1.)

The key is to move beyond functional silos and think instead about how to architect the solutions through a network of partnerships and platforms. It's a customer-centric model, not an asset-centric one. Accordingly, the supply chain architect will work with the customer-facing organization, as well as R&D and engineering, to define the right service portfolios and should-cost targets for customers and customer segments, leveraging a company's own assets as well as partnerships and platforms. With those inputs, the architect will design the appropriate supply chain solution and then work with the rest of the organization to implement, track and continuously adjust to market/customer demands.

FIGURE 1
A NEW MODE OF SUPPLY CHAIN VALUE CREATION

CONFIGURE

MANAGE

OPERATE

CONNECT
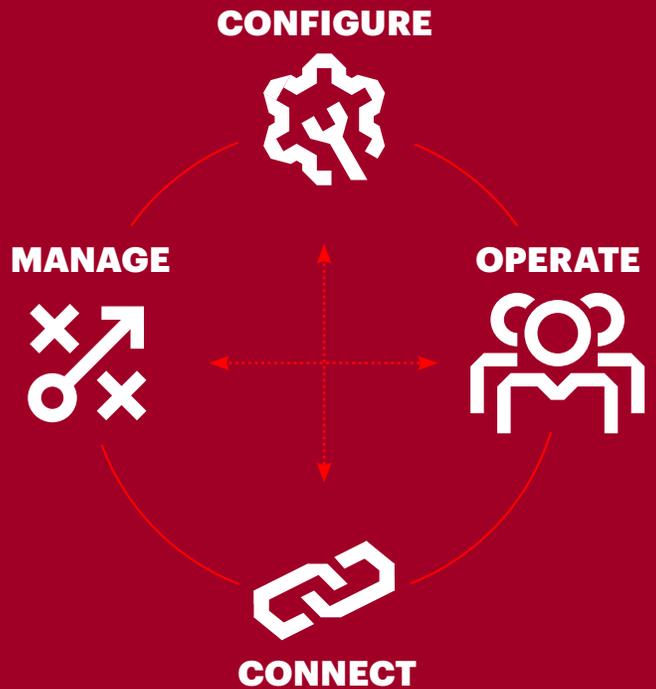
TOMORROW, VALUE CREATION WILL BE CONTINUOUS AND TWO-WAY.

Source: Accenture analysis

One vice president of global supply chain with whom we spoke has a similar vision about the supply chain and customer centricity. He says, "In ten years' time, the key role of the supply chain will be customer success management. Planning, fulfilment and service will be automated through the connected ecosystems and powered by algorithms."

This architectural approach will require multidisciplinary teams—from commercial, product and supply chain—working together to drive the right customer solutions while aligning different supply chain functions. Multiple architects will serve different customers/customer segments. They will also closely monitor cost-to-serve, as well as KPIs for service level agreements, to ensure that the company is working within its cost and service objectives.

SOLVING COMPLEXITY THROUGH TECHNOLOGY

It might appear at first that the complexity of the supply chain of the future will push companies too far beyond the boundaries of their capabilities. In fact, companies can leverage a variety of new technologies to comprehensively automate and add intelligence to the supply chain, from live segmentation to helping manage operations at a new level of speed and scale. The

future supply chain will be self-learning, self-correcting and insight-driven. That's critical because, if you have multiple supply chains and need to make decisions in real time across all these chains and their interdependencies, you need to automate some of that decision flow. Eighty-six percent of the executives we surveyed agree that the sharing of supply chain assets will be enabled by digital technologies.[7]

According to Michael Danner of Danner & Danner Associates LLC, "Automation through technology—if the data is connected correctly—will drive the entire supply chain end-to-end in terms of what's being planned and executed. The planning piece will be automated and the role of the planner will be more of reviewing the output to understand what the issues and options are to meet customer expectations as expected."

An example of advanced intelligence driving the future of the supply chain is technology that uses artificial intelligence, machine learning and other techniques to improve the interactions between people and machines, maximizing overall productivity and effectiveness. One application of the technology is in shipping, where companies can use the platform to run simulations of different options for routes and ports. Port operators and logistics experts can use the logistics application to make better and faster decisions on re-routing options. One company was able to reduce its port re-routing decision time from 6 hours to 60 seconds.[8]

SUCCEEDING WITH YOUR FUTURE SUPPLY CHAIN

Putting all the pieces together—an ecosystem-based supply chain managed by specialized architects and enabled by intelligent technologies—will be a journey. However, companies can take several immediate steps to prepare for this future:

> **Consider what your operating model needs to look like to enable a "configure, operate, connect, manage" approach to the supply chain.** Succeeding with this new paradigm will require moving beyond traditional silos and thinking instead in terms of customer-centric solutions.

> **Start now to develop the skill sets needed to design and manage multiple supply chains.** For example, supply chain architects will need to be able to participate meaningfully in value proposition conversations. They will have to understand the unique capabilities and experience of different supply chain partners and where those can best interface to configure an optimal solution in terms of cost and service. Architects in turn will need to be surrounded by engineers and data scientists who will use intelligent technologies to provide capabilities such as predictive analytics.

> **Invest in supply chain innovation. Such innovation is a rare commodity at most companies.** Supply chain executives should create a clear role in their organizations for innovation on top of what they typically do for equipment, facilities and software. They might create a digital role, or an entire department, or could invest in specific technologies using a dedicated team.

This is no time for complacency. The future could be closer than you think. In fact, it might arrive during your next conversation with a customer.
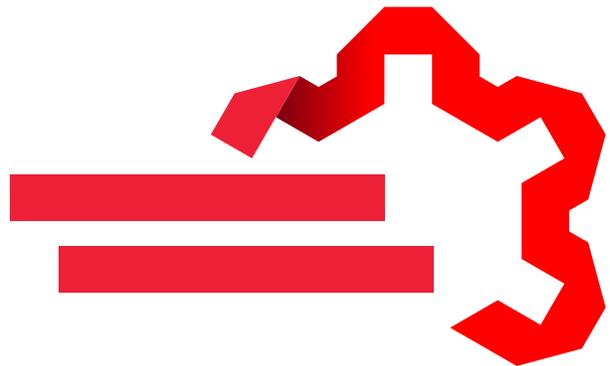
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NOTES

[1] Accenture, Future of Supply Chain research, 2017.

[2] Accenture, Future of Supply Chain research, 2017.

[3] Accenture, Future of Supply Chain research, 2017.

[4] Sources: https://www.usatoday.com/story/tech/news/2016/05/18/ups-see-future-printing-3-d-parts-its-customers/32616301; https://pressroom.ups.com/pressroom/ContentDetailsViewer.page?ConceptType=PressReleases&id=1463510444185-310

[5] https://www.flexe.com/company/

[6] Source: http://www.dhl.com/content/dam/downloads/g0/about_us/logistics_insights/DHLTrend_Report_Sharing_Economy.pdf

[7] Accenture, Future of Supply Chain research, 2017.

[8] Source: https://www.maana.io/enterprise-knowledge-technology/port-omission-decisions/

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