Resiliency Is Just the Start: The New Supply Chain Model

The global supply chain is almost always playing catch-up. The only way to get ahead and stay there is to take a closer look at the evolutionary framework of supply chains, figure out where you may be therein, and move to a resilient, predictive, and market-driven supply chain.

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Chapters

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Build *smart, more resilient* supply chains

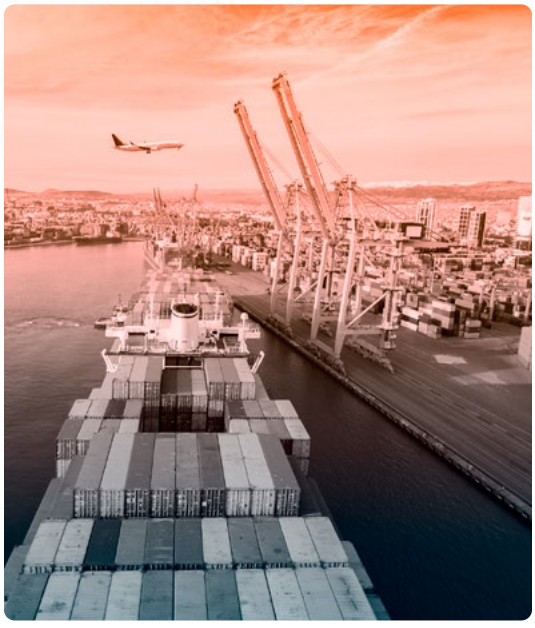
Global ***supply chains*** are still playing catch-up

Obvious: a supply chain is comprised of processes centered on procurement, manufacturing and distribution.

Ironic: your supply chain itself should be a work in process, moving from the basics of efficient operations to the goal of being a market driver.

Supply chains existed before they even had a name. The first time someone brought goods to someone else–voila! The supply chain was born.

It has evolved over centuries, driven by globalization, changing market dynamics, consumer trends and preferences. This evolution, however, has been slow: limited by availability of resources, by technology, by scaling (and sometimes failing) economies.



What the pandemic taught us, and is still teaching us, is that the global supply chain is almost always playing catch-up. And that it's more fragile than any of us would have predicted.

What leaders are doing now is taking a closer look at the chain itself. Not the physical process and stages along the way, but the evolutionary framework therein, and learning how to build more resilient, predictive, and market-driven supply chains.

Evolving *beyond* efficient operations

Where are you in the *diagram* below?

Most twenty-first century companies are in the Reliable stage. While that beats the purely transactional nature of Efficient Operations, it can be easily disrupted, as the pandemic showed us.

Moving to the Resilient supply chain is, for most companies, currently the ideal. A resilient supply chain is defined by its capacity for resistance and recovery. It can predict and account for volatility in demand and supply, and adjust operations to accommodate such volatility.

But resilient essentially means you've created a system that can absorb a few blows. And that's not enough.

The Adaptive, Agile supply chain connects you closer to your vendors and customers and allows you to both anticipate and influence consumer demand, or lack thereof.

But the ideal stage of supply chain evolution? The Aligned supply chain? Here's where you can impact the overall market. By moving outside your vertical into data collection and assimilation from the horizontals that support it, and into capturing and sending market signals, you can influence supply and demand, and build a supply chain that predicts and even orchestrates the market rather than merely respond to it.

The Aligned supply chain.
This is where we want to go.
And after 2020, we all know why.

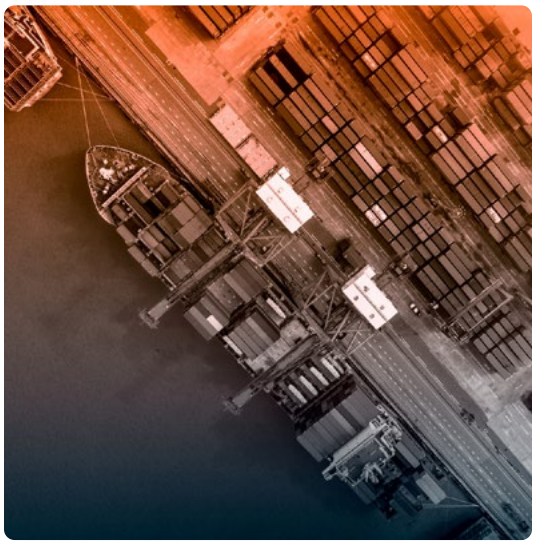
Moving *past Covid* disruptions

A worldwide supply chain shut down wasn't really part of the SCM/logistics conversation until the pandemic. And even though at the time of this writing much of the world has returned to "normal," the supply chain is still reeling. Call it an ongoing ripple effect.

We learned that the traditional end-to-end supply chain model could not withstand the disruptive effects of the pandemic, and that most supply chains were often "in the dark" when it came to the analytics required to make a pivot.

> The pandemic also exposed the ***lack of connectivity*** between business owners, suppliers, and customers when it came to the data that drives a business, and also the lack of connectivity between the systems that support SCM.

Most supply chain professionals were simply caught flat-footed by the shutdown, stuck in place, like an overloaded container ship in the Suez Canal.



The good news is that solution providers jumped into action, building new technologies and tools for supply chain management that could help fix what was currently broken (moving companies more toward the Resilient model), and help ensure it wouldn't break again (moving toward the Agile and Aligned models).

A *unified view*, a clear course of action

With a revamped release of Dynamics 365 Supply Chain Management (D365 SCM), Microsoft worked to address the clear challenges presented by the pandemic and help organizations tackle the new normal.

Dynamics empowers organizations with the ability to obtain a unified view of inventory, warehouse, manufacturing, service, and logistics with predictive analytics that turn data into actionable insights to support better strategic decisions.

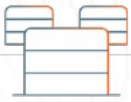
It starts with *effective* product design

Product information is the backbone of supply chain and retail applications, supplying the various modules of a business solution with the product-specific information required to manage distinct business processes.

With Dynamics 365 Supply Chain Management, a business can now create a singular view of its products, a view that is stable, comprehensive, and optimized to support operational processes and analytics.

Dynamics 365 Supply Chain Management *helps* a company

Improve time-to-market



Eliminate data silos

Drive positive customer experiences

Improve product quality across all customer touchpoints

Lean into *effective planning*, procurement, and forecasting

Dynamics 365 Supply Chain Management also helps businesses accurately predict demand, strategically procure raw materials, and ensure resource availability to improve operations, reduce costs, and better meet customer demands. Its master planning capabilities help businesses optimize resource planning and production.

Demand forecasting capabilities enable businesses to intelligently anticipate needs while planning tools help ensure they have the right resources–including raw materials, workforce, and machinery–to meet customer demands.

Planning optimization allows companies to turn a 5-hour task into a

5 minute task

so that production plans can be run multiple times a day, reducing total lead time, increasing production throughput, and improving customer responsiveness.

Moving into the *control* tower

Supply chain control towers are a new concept for building both agility and resiliency into the supply chain by delivering end-to-end operational visibility, all the way from planning to delivery and back.

Dynamics utilizes supply chain control towers as a shared service process that can be brought together from a mix of solutions. For example, a control tower can be assembled using:

Dynamics 365 Supply Chain Management

Dynamics 365 Intelligent Order Management

Dynamics 365 Supply Chain Insights

Microsoft Power Platform

In every case, supply chain control towers give you the oversight required to identify possible issues before they occur, centralize decision making, and more seamlessly connect every step of your supply chain to its global ecosystem. It enables the shift from reactive to predictive planning.

Modeling scenarios with a *digital* twin

While a supply chain control tower allows you to see "what is," a digital twin essentially allows you to see "what might be."

In simple terms, a digital twin is a virtual model of a process, product or service. By having a twin of the virtual and physical worlds allows analysis of data, monitoring of systems to head off problems before they even occur, prevent downtime, develop new opportunities, and plan future operating models.

Here's how a supply chain digital twin comes together: Dynamics 365 Supply Chain Insights – leveraging advanced analytics powered by AI – breaks down data siloes by connecting and taking inputs from existing ERP and supply chain systems across the organization, as well as data from first, second, or third-tier suppliers.

It uses an open modeling language called Digital Twins Definition Language to model physical environments, and can accept data from a variety of sources, including Azure IoT Hub, Logic Apps, and REST APIs, and others.

Using advanced analytics powered by Azure's AI and Machine Learning, Dynamics 365 Supply Chain Insights then performs predictions and what-if analyses on the digital twin to simulate the impact of potential disruptions and gauge the impact of decisions made to mitigate them at any point along the supply chain.

In short, a digital twin of your supply chain allows you to better manage the present, and better prepare for the future.

Adapt and *thrive*

In conclusion... there is no conclusion.

It is clear that the supply chain is always in motion: it may have start and end points, but it does not stop, it doesn't conclude. And it's often at the mercy of external factors such as weather, global politics, pandemics.

Technology cannot hope to identify and fix every challenge you may face, but it gives you the foundation to more quickly navigate those challenges and–when times, the weather, global health are good–have a supply chain that operates with complete efficiency.

With Dynamics as the foundation for supply chain workflows and insights, you'll be able to pivot when needed, respond with agility, and take your business to whatever is next.

Interested in making your supply chain more resilient?

Connect with us today