The confluence of recent supply chain disruptions and developments in technological capabilities is putting an increased focus on end-to-end supply chain orchestration.

Progressing Visibility and Agility with Supply Chain Orchestration

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Introduction

Most supply chain organizations that IDC speaks with understand the benefits of and are moving to a single supply chain application platform or suites; at the least, they are attempting to reduce the number of different vendors that they use. At the same time, this is a longer-term journey, and we still see a significant percentage of the IT supply chain management (SCM) spending market using legacy on-premises applications. True SaaS cloud is currently at about 21% of the SCM market and is expected to grow to 45% by 2025. This means that for the foreseeable future, supply chains will be using a variety of vendor tools, some in the cloud and others on premises. At IDC, we have frequent inquiries from clients where the initial ask is for recommendations on a new warehouse management system (WMS), a new demand planning system, or something similar. Yet it often becomes apparent that the problem is not in the specific tool but rather the ability for that tool to connect upstream and downstream to other tools. In other words, clients are looking for "connective tissue" in their supply chain.

AT A GLANCE

WHAT'S IMPORTANT

» Responding quickly to disruptions is a top priority for supply chains in 2023.

» Supply chain visibility and agility continue to be top priorities across industries to better manage risk.

» Organizations continue to seek end-to-end integration and the "connective tissue" to improve flexibility, visibility, and speed.

KEY TAKEAWAY

In light of today's ongoing disruptions, enterprise operations require system and business process integration to respond quickly and with insight to volatile conditions.

If we accept the persistence of disparate ERP, manufacturing, and supply chain IT tools for at least the next decade, then we must also accept that mechanisms are needed to better tie these systems together. Indeed, the challenge for the supply chain, now and into the future, will be to better integrate these tools in an environment where the aspiration may be for an integrated platform or suite, but the reality is far different.

Whether these integration efforts will be from vendors offering "connective tissue" capabilities or from those with supply chain orchestration/control tower tools is less clear. It may be a difference without a distinction in that these tools will converge to perform this function. Certainly, vendors are having some success moving customers onto their supply chain platform/suite offerings more broadly, but it is going to take a while. Even when there, the role and importance of supply chain orchestration/connectivity applications will persist.

The Importance of Speed and Agility

Executives from industries across manufacturing, retail, healthcare, wholesale distribution, and other sectors have consistently reported in IDC surveys that their top investment areas center around visibility, agility, and supply chain orchestration. In an inherently disruptive world, supply chains that are quicker to seek alternatives will win against those that are slower. This does not mean that the cost of alternatives is not important; it means that the supply chain should think about cost in terms of speed rather than in terms of actual cost. This has profound implications for technology and technology-enabled supply chain processes.

Two IDC surveys show that investments in the supply chain are not slowing despite inflationary pressures and fears of recession. Results from IDC's 2022 *Worldwide C-Suite Survey* suggest investment in supply chain solutions remain prioritized, and while investments in supply chain platforms are growing as a priority, greater than 20% of companies still expect to be buying best-of-breed/point solutions for the foreseeable future. In that survey and IDC's 2023 *Supply Chain Survey,* respondents have made clear that supply chain executives are focused on enhancing data, modernizing business processes, and upgrading supply chain tools to better integrate insights and decisions across the breadth of the end-to-end supply chain.

In IDC's 2023 *Supply Chain Survey* of over 1,500 companies, we see a mix of efficiency and resiliency as the top priorities cited by respondents. While the top response in Figure 1 is something of a reaction to a period of high inflation that companies have felt in 2022 and 2023, the second priority is much more strategic, and it speaks to the need for better connectivity and integration in the supply chain. Without the necessary tools and integrated processes, companies will not have the speed to be able to respond more quickly to disruption or seize on opportunities. The third priority, supply chain resiliency, links clearly to the need for better visibility and agility, though, again, the ability to translate this into productive and effective outcomes requires that the end-to-end supply chain be aligned and integrated.

FIGURE 1: *Top Priorities for Supply Chains: In the Next 12 Months and in 3 Years*
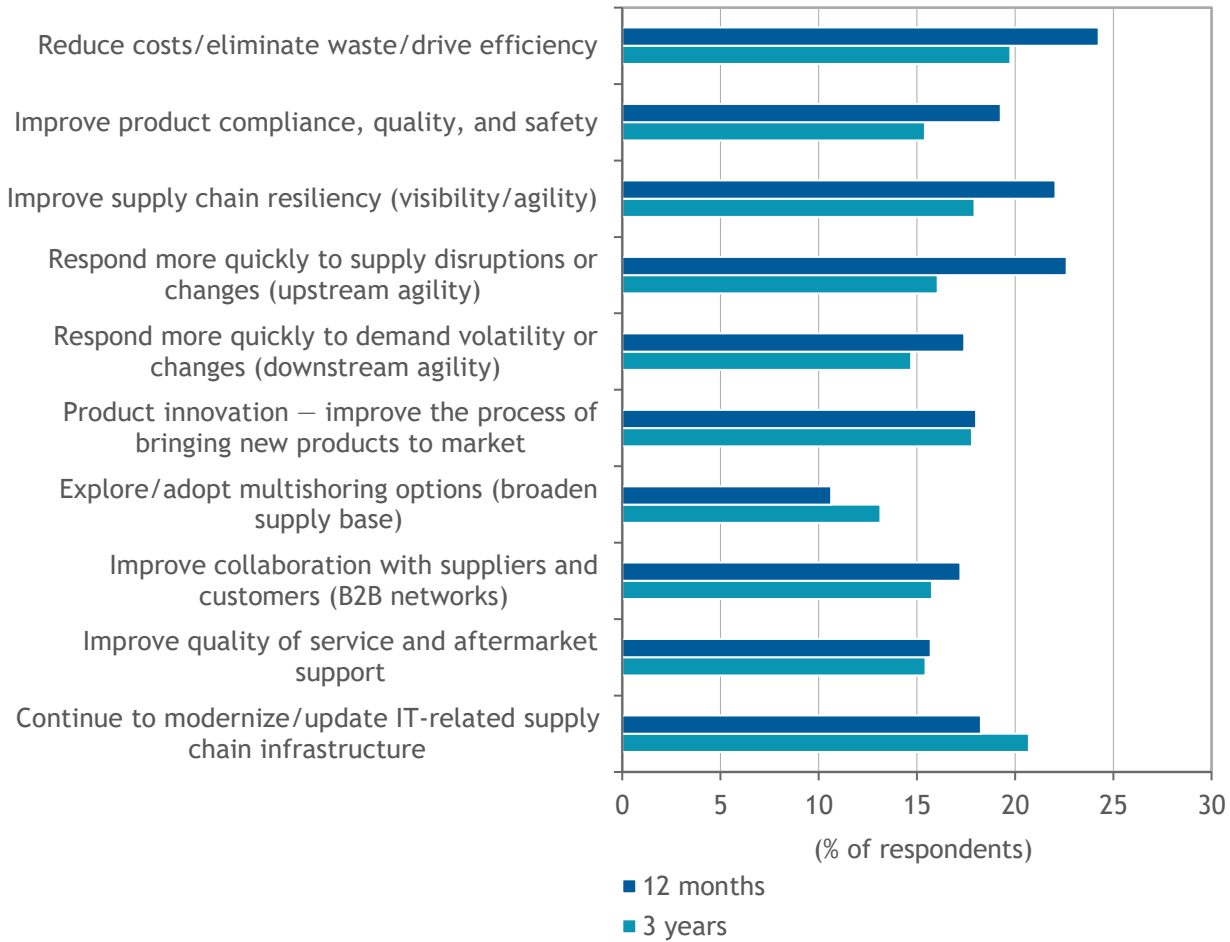
n = 1,513

Source: IDC's Supply Chain Survey, 2023

Mitigating Risk in the Supply Chain

At IDC, we have long viewed risk and resiliency as flip sides of the same coin. The supply chain cannot be more resilient if it does not understand the dimensions of risk and the ways in which this risk can be mitigated. When asked about risk, supply chain executives have coalesced around several priorities as seen in Figure 2.

FIGURE 2: *Steps Taken to Mitigate Supply Chain Risk*

Q *What steps are you taking to mitigate risks in your supply chain?*
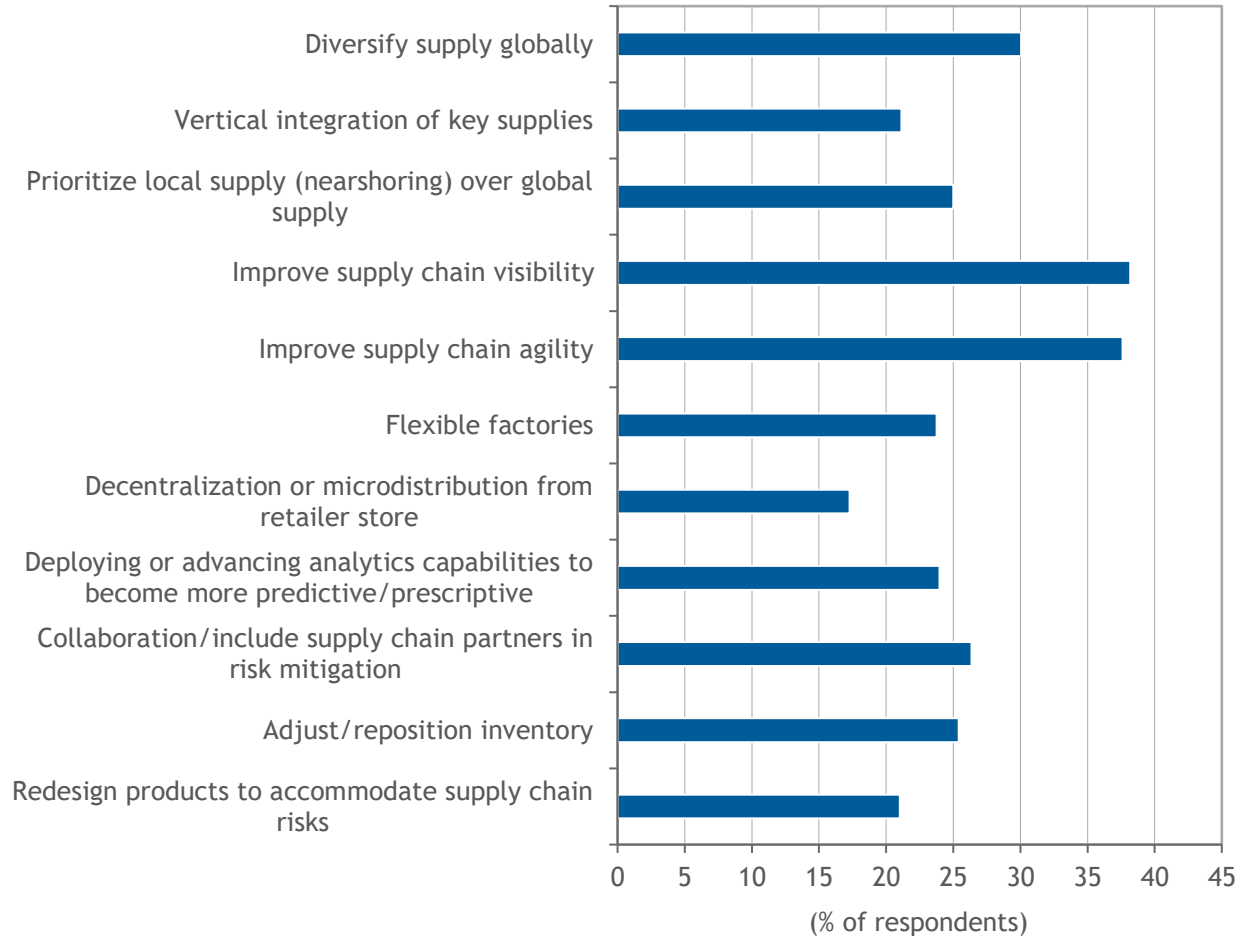
n = 1,513

Source: IDC's Supply Chain Survey, 2023

In both survey data and in face-to-face discussions, IDC clients have reported a desire to gain further visibility into tier 1 and tier 2 suppliers and have said collaboration with partners continues to be a focus. Gaining visibility into partners' supply chains and enhancing collaboration may heighten the level of complexity involved in managing the end-to-end supply chain, but it offers significant benefits in aligning demand and supply and ensuring that disruptions are seen with greater lead time. Enablement of shared visibility and control requires further sophistication of tools. Adding more visibility also increases the nodes of decision making and the amount of input data available for decisions.

If visibility is the first step in being more resilient and faster to try alternatives, then agility becomes its dance partner. Seeing something coming but being unable to do anything about it is not resiliency, it is frustration. In discussions with manufacturers, they have told us that to be agile, they need to enhance capabilities in three key areas:

» **Data integration:** The ability to align and extend data across enterprise operations means faster processing and more refined business processes and control.

» **Connectivity:** Having integrated data is a critical step. The ability to pull data from enterprise systems and layer intelligence through enterprise tools enables the use of more advanced tools, including analytics, intelligence, and modeling tools (AI/ML).

» **Automation:** After data integration, a progression through the automation of processes naturally occurs, allowing companies to remove manual steps where possible, enabling management by exception, and feeding back decisions to ERP/transactional systems to tie visibility to execution.

Once again, we see the importance of connectivity and "connective tissue." If data is not aligned across the end-to-end supply chain, insights will be fragmented and decisions sub-optimized.

Considering PartnerLinQ

A comprehensive platform designed to maximize enterprises' supply chain potential, PartnerLinQ offers a unified solution for digital connectivity, superior visibility, and intelligent decision making. PartnerLinQ is a B2B API and EDI platform that is purpose built, cloud native, multitenant, multi-geography, hyperscalable, and high performance. It integrates with trading partner ecosystems and ecommerce channels with native solutions for overcoming challenges in visibility and supply chain orchestration, making it easy to set up and use.

Digital Connectivity and Collaboration

PartnerLinQ supports multi-enterprise collaboration serving as a seamless digital connectivity tissue, enabling smooth communication between enterprise and trading partner ecosystems as well as ecommerce channels. The platform simplifies setup and usability empowering enterprises to overcome barriers and efficiently manage operations. PartnerLinQ enables complete end-to-end digital connectivity and facilitates multi-enterprise collaboration throughout all stages of supply chain execution, enabling and enhancing business resilience and responsiveness, particularly in volatile environments.

The PartnerLinQ platform goes beyond traditional functionalities by incorporating intelligent workflows that deliver a robust yet simple and inclusive experience for coordinating business proceedings across multiple enterprises. It enhances error handling and offers improved visibility, thereby driving higher performance and fostering collaboration among stakeholders.

Intelligent Decisions and Control

The PartnerLinQ platform provides business users with data-driven insight through its advanced data extraction, machine learning, sophisticated algorithms, and delivery systems. The platform's capabilities are packaged as composable control towers that reward advanced business users with actionable insights that fuel automation, streamline processes, and significantly enhance customer service. Organizations can leverage these capabilities to expedite their planning decisions and achieve higher forecasting precision by leveraging integrated data capture and normalization functionalities included with PartnerLinQ. PartnerLinQ's robust connectivity and seamless communication infrastructure play a pivotal role in supporting the information value chain, enabling data capture and harmonization from various sources simultaneously and in near real time. This frictionless data exchange further strengthens operations and drives optimal performance across the board.

New Generation Supply Chain Technology

PartnerLinQ delivers business-focused transformative technology through a unified core technology platform, core technology that is cloud native, serverless, plug and play, hyperscalable, and available on multiple cloud platforms in support of customers across the globe.

PartnerLinQ has received significant recognition from customers across industries including retail, consumer packaged goods, food and beverages, logistics, transportation, fashion and apparel, general merchandizing, and manufacturing for helping critical supply chains thrive in the new digital age.

Challenges

When looking at end-to-end orchestration of the supply chain, IDC finds several areas of future value for businesses as well as some more immediate hurdles:

» Data quality and latency continue to be a challenge. As enterprises further integrate cross-functional internal and external data, if that data carries errors, is incomplete, or lags behind the pace of business, its value is eroded.

» While vendors offer various forms of "control towers" to integrate and manage supply chains, some of these tools have come to be viewed by business users as "reading the news" as opposed to enabling action. Tools and capabilities that lean more toward acting on information will provide the value businesses are seeking.

» Finally, to truly integrate data with all partners, suppliers, customers, and functions of an enterprise, there sometimes can be a web of links, both inbound and outbound. Data feed architecture strategies are required to ensure the efficiency and reliability of data feeds.

While PartnerLinQ brings some good capabilities with its platform, data connectivity and supply chain orchestration are a crowded space and the company will need to clearly differentiate itself to rise above the crowd.

Conclusion

The ability to respond to real or near-real information and to do so with intelligence can be a competitive advantage. Tools and capabilities that enhance visibility and end-to-end integration are helping organizations gain control, responsiveness, and optimization of their supply chains.

Whether they are improving collaboration, solving labor shortages, or addressing supply chain disruptions, organizations need end-to-end visibility and connectivity into their operations and supply chain processes to understand and react together with their partners. This puts a high priority on applications that integrate the entirety of a company's operations in user-friendly ways. In other words, modern organizations need "connective tissue."

Those companies that excel at integrating data, provide good UI, and enable rapid integrated responsiveness to manage supply chains will be well-positioned to meet the growing need.

> To maximize efficiency, respond intelligently to disruptions, and optimize the whole of operations, organizations require end-to-end data integration, clear user interfaces, and as little latency as possible.

About the Analyst

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As a research director, Eric Thompson is a member of the IDC Worldwide Supply Chain Strategies Program, responsible for providing research, analysis, and guidance on key business and IT issues pertaining to manufacturing, retail, and healthcare supply chains. He currently leads the Worldwide Supply Chain Strategies: Planning and Multi-Enterprise Networks practice, providing fact-based research, analysis and insight on best practices and the use of information technology to assist clients in improving their capabilities in these critical supply chain areas.

MESSAGE FROM THE SPONSOR

PartnerLinQ is a comprehensive B2B API & EDI platform designed to enhance supply chain operation from end to end offering a unified solution for digital connectivity, visibility, and decision-making. The PartnerLinQ platform features a composable architecture, built to scale and easy to use. PartnerLinQ seamlessly enables data capture, reporting and alerting providing end-to-end supply chain visibility that is approachable while also making available some of the most advanced integrated planning and forecasting solutions in the market today allowing business to challenge practices by simulating market drivers and adapting business plans for optimal success.

Learn more about PartnerLinQ at www.partnerlinq.com

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