

Enabled by advanced visibility and analytics, supply chain intelligence generation allows teams to simultaneously address their most pressing challenges while effectively balancing the push for resilience with the need to generate efficiencies.

Optimized Asset Deployments and Resilient Transportation Networks Through Advanced Visibility and Analytics

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Introduction

Organizations have suffered a painful series of disruptions in recent years that impacted their ability to sustain continuity of operations, with many experiencing lost sales, reduced revenue, or damage to their brand's reputation. More than ever before, supply chain leaders are being pressed to manage inherent risks more adeptly across their supply chain by cultivating capabilities to enable accurate and timely decisions and utilizing data to improve planning.

The looming threat of shifting trade alliances, geopolitical conflicts, the effects of climate change on global logistics networks, and ongoing labor unrest are top of mind for executive leaders as they seek to become agile in the face of future uncertainties. Propelling efforts for resilient operations, logistics leaders are prioritizing flexible transportation solutions that support more diverse and dynamic procurement strategies while meeting or exceeding the expectations of increasingly demanding customers.

IDC defines supply chain resilience as "visibility (see it) + advanced analytics (understand it) + agility (act on it)." Transportation asset owners/operators must become more agile as conditions change in terms of the operational landscape (weather, congestion, and other factors) and planning (network analysis and asset/resource optimization). When done effectively, agile operations enable improved visibility and collaboration across business functions. Modern supply chains are challenging leadership teams as they become more dynamic through diversified sourcing footprints, evolving inventory strategies, and the higher costs of operations.

According to IDC's 2023 *Global Supply Chain Survey*, business leaders are prioritizing improved visibility, agility, and increased collaboration whether their primary business activity is providing transportation and logistics services or something else. What sticks out among these top priorities is the extent to which more leaders from transportation and logistics service providers are prioritizing the deployment of advanced analytics to effectively operate under constantly changing conditions (see Figure 1). The persistent sting of disruption in recent years has had a noticeable impact on transportation and logistics leaders, who are now focused on how to utilize data to better navigate change and

AT A GLANCE

KEY STATS

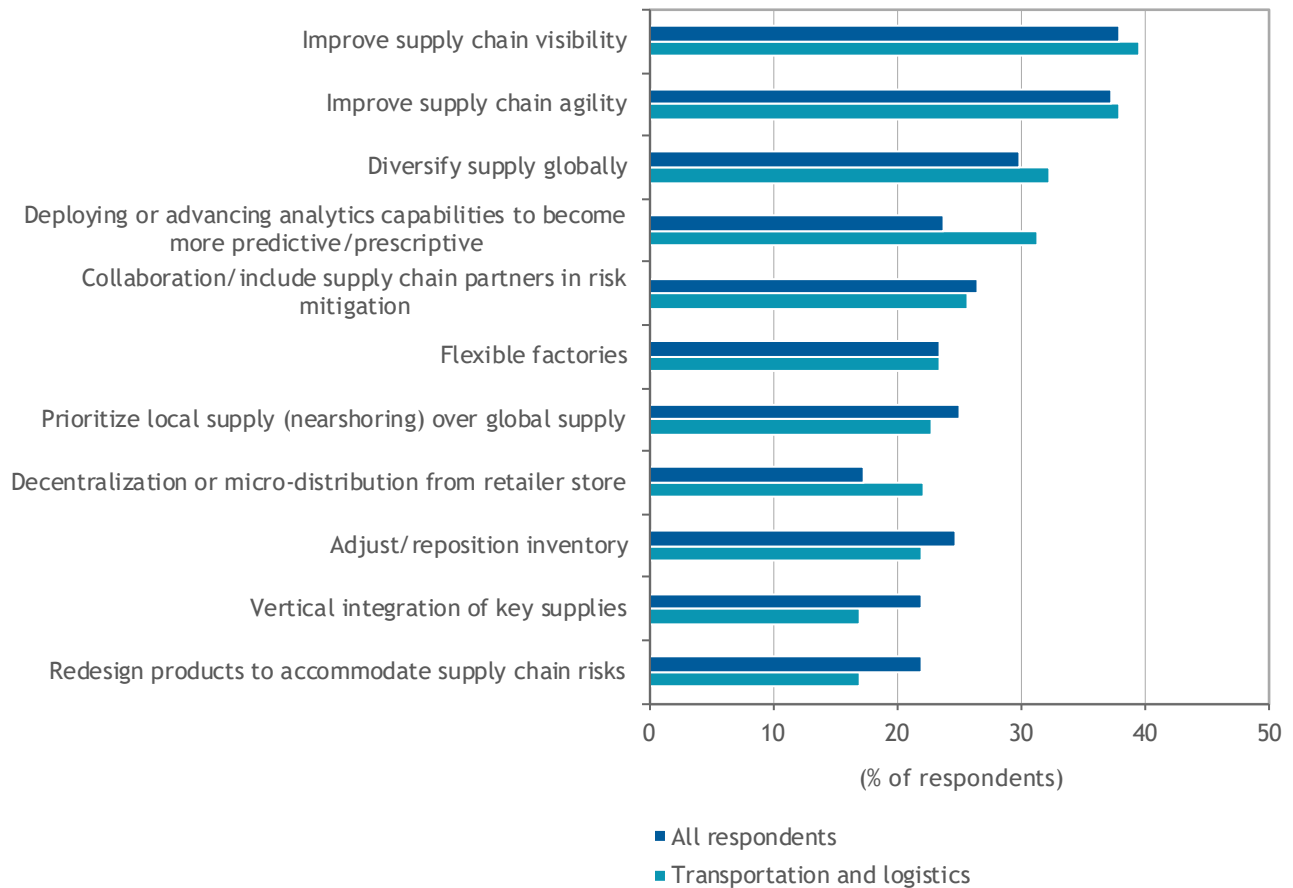
Nearly two out of every three logistics leaders indicated their top priorities over the next 12 months are:

- » Optimizing the supply chain to reduce costs (63%)
- » Improving visibility across the end-to-end supply chain (62%)

drive evidence-based decision making across the logistics landscape. The ability to swiftly and accurately make decisions that incorporate many internal and external factors has risen in importance among transportation and logistics service providers, more so than with leaders from other business areas.

FIGURE: **Mitigating Supply Chain Risk**

Q What steps are you taking to mitigate risk in your supply chain?



n = 1,513

Source: IDC's Global Supply Chain Survey, 2023

Logistics service providers must be capable of effectively responding to changes that are coming with greater frequency and magnitude. At the same time, economic conditions are balancing the push for resilient operations with the need to generate efficiencies that reduce and control costs. Higher and out-of-control costs were cited by transportation and logistics business leaders in IDC's 2023 *Global Supply Chain Survey* as disruption's top impact on their businesses, and they remain a chief concern for logistics teams aiming to find a competitive edge.

When IDC asked the same transportation and logistics leaders how their supply chain could be better optimized to drive efficiencies given the current economic climate, the top responses were to become predictive of future disruption, react more quickly to disruption when it materializes, optimize asset maintenance, automate repetitive tasks, and improve

asset utilization. Driving efficiency and eliminating waste through more informed, timely, and evidence-based decisions are high priorities for transportation and logistics teams. Transportation service providers are steadily focused on optimizing the deployment of mobile assets to meet evolving organizational needs while also making their operations more efficient.

Pursuing profitability, utilization, and service initiatives in tandem can be facilitated by generating supply chain intelligence enabled by end-to-end visibility data, making transportation planners and schedulers more efficient without sacrificing the quality of the services they provide.

Real-Time Decision Enablement

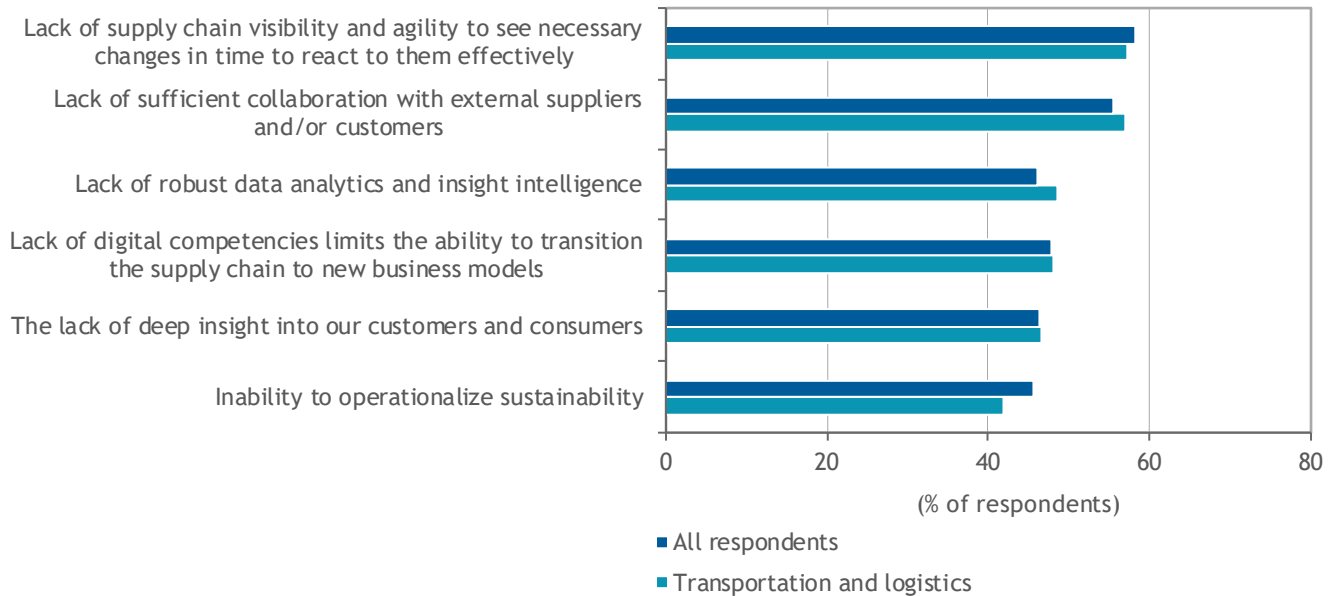
IDC's talks with logistics leaders show that the key technologies they are prioritizing to advance their supply chains' digital maturity in the next two to three years are advanced analytics (artificial intelligence/machine learning), cloud platforms, and visibility platforms. Clean, relevant, and timely visibility data is foundational for cultivating intelligence across transportation and logistics operations. Generated at the edge, communicated via wireless networks, and aggregated in the cloud, real-time visibility data allows logistics providers to get the information they need, model it to understand what to do with it, and engage in "what if" scenario planning to drive the next best action.

Logistics practitioners and leadership teams alike understand the importance of reducing data latency as reduced time to decision has become a key avenue through which the logistics function can sharpen a competitive edge. Enabling informed, timely decisions across a growing list of variables makes logistics operations more cohesive, eliminating some of the negative consequences of disruptive events and minimizing those that cannot be avoided outright. Real-time decision enablement is established as artificial intelligence and machine learning capabilities perform these assessments continuously, incorporating new risk factors as they surface. This allows teams to optimize assets and achieve the perfect balance of cost, service, and sustainability as conditions change and priorities evolve.

Figure 2 shows future supply chain concerns.

FIGURE 2: **Future Supply Chain Concerns**

Q As you think about the future of your supply chain, what gaps are likely to be most problematic if not addressed in the next 12 months?



n = 1,513

Source: IDC's Global Supply Chain Survey, 2023

Continuously refining models to incorporate new and relevant data sources allows teams to drive better business outcomes across the operational landscape. Applying technology to pragmatically address and solve business problems generates a series of incremental improvements that continuously deliver value to customers — in ways that are demanded and in ways that have not yet been imagined.

When IDC asked logistics service provider leaders across regions about their priorities over the next year, the top 2 responses were optimizing the supply chain to reduce costs (63%) and improving visibility across the end-to-end supply chain (62%). Improving data quality, accuracy, and relevancy provides an objective standpoint, a single source of truth from which teams can begin operating from the same playbook and pull in the same direction to address the top challenges they face in today's environment while not sacrificing on the services they provide. These challenges include:

- » Generating efficiencies to enable profitability by eliminating waste and offsetting the increased cost of financing and operating assets
- » Facilitating better collaboration/planning across and between organizations through shared data
- » Augmenting scarce labor (drivers, schedulers, and planners) to become more productive
- » Reducing or eliminating email, phone, and spreadsheet dependence
- » Advancing sustainability across operations

Process automation helps teams make consistent decisions and eliminate errors, speeding decisions that augment logistics practitioners' capabilities to make intelligent decisions that deliver better business outcomes. Removing cumbersome, repetitive tasks from logistics practitioners' workloads allows the practitioners to shift efforts toward delivering value to their customers by focusing on more strategic initiatives where their knowledge and experience can bring about transformational change.

In a rapidly evolving space of increased focus and importance, transportation and logistics service providers are a critical component in helping organizations cultivate and execute supply chain strategy. From first mile to last mile and each leg in between, digital transformation across transportation operations, enabled by advanced visibility, allows teams to improve the value of the services they provide and advance their supply chain maturity to keep pace with the competition, create and sustain a competitive advantage, or become a leader by developing best-in-class capabilities.

Benefits

Transportation and logistics service providers are tasked with consistently delivering value to their customers, helping them address the supply chain challenges they face today, and pragmatically solving business problems. When IDC asked logistics leaders about the benefits of past efforts to improve supply chain visibility, their top responses were improved customer service (39.9%), better shipment tracking (39.6%), inventory availability/accuracy (30.2%), the ability to quickly identify inefficiencies (28.9%), improved resiliency and agility (28%), and improved asset utilization (27.5%).

Clean, relevant, and timely visibility data supports the proliferation of intelligence generation, enabling teams to become more customer centric by making informed and consistent decisions that support broader organizational initiatives. As economic conditions put additional pressure on logistics service providers to increase revenue, reduce costs, and help drive profitability across operations, meeting these challenges demands increased visibility across the operational landscape. Data that enables real-time decision making spurs collaboration that more tightly integrates transportation and logistics activities with organizational strategy. Reducing or eliminating siloed decision making generates alignment across business functions. This helps facilitate an understanding of the implications for other aspects of the business when decisions are made in one area of operations. A single source of truth is created through which teams can work together to support scalable operations and improve overall supply chain resilience.

Enabling data-driven insights gathering allows teams to more swiftly identify and react to changing conditions or even predict future disruption as they take timely, informed, impactful action to mitigate risk and improve service consistency. Utilizing visibility data to enhance decision making in a live environment, and in planning to optimize network performance, helps teams avoid persistent bottlenecks and optimize resource deployment. This makes the services they provide more flexible to accommodate evolving supply chain needs while also better aligning their service capabilities to consistently meet or exceed customer expectations.

As logistics service providers understand and communicate trade-offs across operations, they are better able to balance efficiency and resiliency efforts. This is accomplished by knowing where redundancy contributes to resilience versus where efficiencies should be pursued with an eye on cost control, in turn facilitating buy-in across supply chain stakeholders. Evaluating these trade-offs at shorter and more regular intervals helps teams adjust to changes as they occur across the operational landscape. Automating these decisions augments the work of logistics planners/schedulers whose scarcity has become a long-term concern of supply chain leaders. Helping teams streamline customer communications, delivery, and pickup scheduling with geofencing capabilities and extending supply chain visibility to customers drive consistency and eliminate errors between and across supply chain stakeholders. Eliminating or reducing

cumbersome and repetitive tasks helps reduce workforce attrition by improving employee engagement and satisfaction, allowing practitioners to focus their knowledge and experience on more interesting value-added tasks.

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 by serving as a seamless digital connectivity tissue, enabling smooth communication between enterprise and trading partner ecosystems and 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 insights through its advanced data extraction, machine learning, sophisticated algorithms, and delivery systems. The platform's capabilities are packaged as composable control towers that provide 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 using the integrated data capture and normalization functionalities included with PartnerLinQ. Its 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 beverage, logistics, transportation, fashion and apparel, general merchandizing, and manufacturing for helping critical supply chains thrive in the new digital age.

Challenges

In an increasingly competitive space, visibility providers like PartnerLinQ must be clear on how to distinguish their product against well-known competitor offerings. Delivering standalone visibility, visibility + analytics tools, or visibility + analytics tools + custom-delivered insights will each have a different market potential. Understanding the relevant market segmentation will allow vendors to target the appropriate audiences for their visibility product with a distinct focus on addressing the most pressing supply chain issues.

To provide a wholistic, end-to-end view of transportation activities, data streams must be aggregated from multiple sources, requiring systems compatibility that can deliver a seamless view from point of origin to destination, across multiple modes and through a variety of terminals and landscapes. Delivering simplified visibility eases implementation among supply chain stakeholders while ensuring the robustness of a platform can support customer growth and uniqueness.

As economic conditions challenge the ability of transportation providers to secure budget for digital maturity, helping customers understand and manage ROI is increasingly important, both in an immediate sense and on an ongoing basis to demonstrate lifetime value. Simple, streamlined visibility that quickly yields measurable results and supports future digital transformation ambitions is needed.

Last, developing and communicating a future capabilities road map help transportation providers understand how visibility will clear a path toward continuous improvement and innovation. Advancements by visibility vendors must be relevant and effective, helping their customers address and solve the challenges of today and tomorrow. Quick wins that yield positive business results are important for organizations, and they can help ignite and strengthen partnerships with visibility as a key enabler of advancing supply chain digital maturity.

Transportation and logistics service providers are prioritizing the deployment of advanced analytics to effectively operate under constantly changing conditions.

Conclusion

As shippers take steps to address the inherent risks across global supply chains, flexible transportation services are needed that deliver service continuity while generating intelligence that supports profitability. Making more timely, informed, and consistent decisions across complex global logistics networks requires visibility data that feeds analytics models, which quickly and efficiently deliver operational intelligence that allows organizations to be nimbler in the face of constantly changing conditions.

In an environment where collaboration and coordination across and between organizations are essential, interconnected systems that extract insights and allow teams to operate from a single source of truth become highly valuable. Logistics service providers must become capable of generating end-to-end visibility across their operations and be willing to pull back the curtain to share visibility data with their customers to become a trusted and valued partner over the long term.

As shippers work to become more resilient to future disruptive events and generate efficiencies that reduce or control costs, transportation providers are tasked with demonstrating where these trade-offs exist. Providing the business with timely insights into the implications of these trade-offs helps transportation providers create a competitive advantage as they produce and communicate strategic insights that support their customers' evolving needs. Synchronized efforts allow transportation teams to collaborate on innovation that improves resilience, eliminates waste, reduces costs, and supports sustainability goals simultaneously, providing a basis from which transportation operations can become more deeply integrated with a customer's supply chain strategy.

About the Analyst



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Travis Eide is the research director of IDC's Worldwide Supply Chain Strategies Program, responsible for providing research, analysis, and guidance on key business and information technology (IT) issues pertaining to the manufacturing, retail, and healthcare supply chains. He currently leads the Worldwide Supply Chain Strategies: Transportation, Logistics, and Global Trade Management 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 fulfillment areas.

MESSAGE FROM THE SPONSOR

PartnerLinQ stands out as the premiere supply chain platform that redefines digital connectivity, end-to-end visibility, and decision intelligence. Built on a resilient technology infrastructure, PartnerLinQ delivers a composable platform that elevates business partner collaboration through accelerated onboarding and orchestrated processes while providing intelligent insights across your entire supply chain ecosystem. With our cutting-edge technology, PartnerLinQ empowers supply chains to seamlessly adapt to dynamic demands at the speed of business.

Learn more about PartnerLinQ at www.partnerling.com.



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