HOW TO REPORT

Three Steps To Digitally Transform Your Supply Chain

How To Evolve Your Supply Chain Technology Portfolio To Meet Resilience And Sustainability Challenges

September 26, 2024

By George Lawrie with Pascal Matzke, Christian Prandi, Hannah Jachim, Frank Harris

Summary

Faced with new sustainability mandates and continuous geopolitical uncertainty, technology leaders must review and transform their supply chain strategies. This report provides an overview of the key steps technology architecture and delivery executives must take to transform their supply chain technology portfolios, to boost resilience and sustainability, and to profitably deliver the compelling product choice and availability that wins, serves, and retains customers.

Get Started On Supply Chain Technology Transformation

Technology architecture and delivery (TAD) leaders can begin their supply chain transformation by assessing and benchmarking their existing supply chain technology portfolio, developing a future-state vision, and determining the fate of each application in the supply chain portfolio.

Step One: Evaluate And Benchmark Your Existing Supply Chain Technology Portfolio

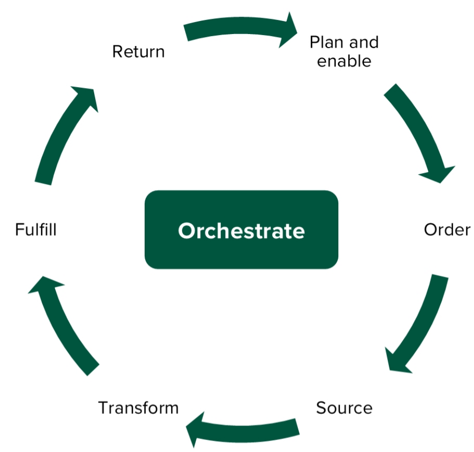
Customer-obsessed organizations know that short lead time and high availability for the right range of products foster customer loyalty. To start their transformation process, TAD professionals should:

- **Benchmark supply chain effectiveness against peers.** Usually IT teams already provide digital business and strategy leaders with tactical metrics based on internal data to drive incremental supply chain improvements. But to help with more disruptive changes they usually make use of three strategic benchmarks — based on publicly available data — to transform their supply chain capabilities from commodities into competitive differentiators. This enables business leaders to choose segmented supply chain strategies that balance the value of prompt local availability against cost to serve for each type of customer and product.
- **Develop the business case for supply chain transformation.** Having benchmarked the size of gap between customer expectations and their own enterprise's capabilities, TAD professionals can develop a business case for supply chain transformation by collecting reliable data to populate the Total Economic Impact™ (TEI) model. They should use Forrester's human-centered Change Management Model to recruit leaders responsible for realizing the business case.
- **Model supply chain technology portfolio support for six processes.** Enterprises use industry models like SCOR to map and orchestrate level one processes: plan and enable; order; source; transform; fulfill; and return (see Figure 1). TAD leaders should use this model and select associated supply chain performance metrics to focus transformation investment on value creation for customers and shareholders. For example, initiate tactical improvements in visibility of goods in transit with strategic improvements in supply chain network reconfiguration.

- **Assess supply chain process maturity.** New technologies enable more extensive collaboration with selected partners, which enables enterprises to reach their supply chain sustainability and resilience objectives without compromising profitability. TAD professionals should use our supply chain maturity self-assessment to prioritize the most significant opportunities for process improvement and modernization or replacement of supporting applications.
- **Achieve familiarity with common supply chain modernization scenarios.** TAD professionals should use Forrester's scenario quick start cards to review their peers' approaches to the most common supply chain modernization challenges.

Figure 1

The Supply Chain Operations Reference Model



Source: adapted from the SCOR model

Step Two: Develop And Socialize Your Future State Vision

TAD professionals must recruit support for supply chain technology transformation from revenue generation and financial management leaders who will take responsibility for improving the metrics that support the transformation business case. To describe and sell their future state vision, TAD professionals should:

- **Understand the future of supply chains.** As manufacturers improve their processes, supporting applications, and infrastructure from traditional to modern to high-performance IT, their focus will change from cost optimization to value effectiveness. As manufacturers become quicker, smarter, and greener in order to survive market volatility, their supply chain technology portfolios must reflect four major trends and capitalize on eight key technology clusters.

- **Map their supply chain technology portfolio to Forrester's reference architecture.** Implementing a competitive supply chain strategy depends on collaboration between the supply chain and IT leaders that invest in platforms and partners to deliver the resilience and agility that customers expect. However, with a rapid proliferation of new technologies offering innovative capabilities — ranging from predictive time of arrival to AI-infused outbound yard management — enterprises run the risk of ineffective investment in "shiny objects." To succeed, supply chain leaders must team up with business and technical architects to define a common language that guides investment decisions. Use Forrester's supply chain reference architecture for guidance on how enterprises deliver value to their customers, what supporting capabilities they need, and which technologies, platforms, or applications enable those capabilities.
- **Determine the fate of existing applications.** TAD leaders should understand the maturity and relative business value of technologies, applications, and platforms that support supply chain planning and execution. They should use Forrester's supply chain technology inventory and assessment tool to identify each technology type that their organization uses for supply chain operations. Additionally, they should use the tool to understand associated characteristics and costs, functionality against requirements, and user adoption. Leaders can then review their spending across vendors and products by budget owner, user group, or customer factors. The tool also provides investment recommendations based on user input related to functionality and adoption.

Step Three: Understand The Supply Chain Technology Platform Landscape

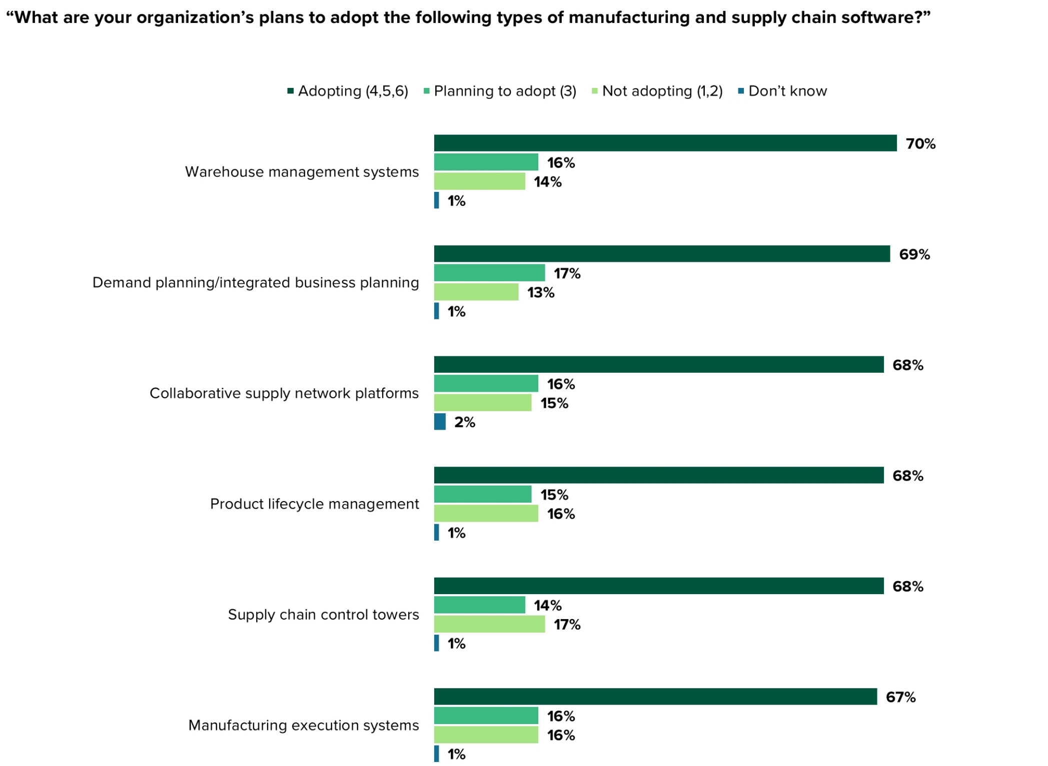
TAD professionals must understand the landscape of platforms and applications for:

- **Third-party risk or control tower management.** You can use third-party risk management platforms to catalog, classify, and centralize risk information for all third-party relationships; identify, mitigate, and monitor for risks throughout the relationship lifecycle; and protect against disruption, revenue impact, and reputational risk. These solutions also alert enterprises to exceptional conditions, such as strikes or impending supplier insolvency, and delegate responsibility for resolving anomalies.

- **Achieving sustainability goals.** TAD professionals can use environmental sustainability procurement technology to provide visibility into their supply chain's carbon footprint; lower CO2 emissions, support regulations, and report on progress; and foster circularity principles to improve sustainability impact.
- **Supplier value management.** In Forrester's Business Risk Survey, 2024, 65% of global enterprise risk management decision-makers say their firm uses a third-party risk management platform to deal with third-party risks. You can use supplier value management applications to collaborate with suppliers, manage supplier-related risks, empower smart purchasing decisions, and drive continual optimization of what and how your enterprise buys.
- **Collaborative supply networks.** Collaborative supply networks (CSNs) combine elements of demand management that Forrester describe as integrated business planning, as well as some elements of supply chain control towers. Use CSNs to identify and authenticate community-validated partners for rapid, reliable collaboration on supply chain resilience and sustainability, and to simplify collaborative demand planning and fulfilment. In Forrester's Software 1 Survey, 2023, 84% of global software decision-makers said that their firm was adopting or planning to adopt CSNs, compared with 81% who said the same about supply chain control towers and 86% for demand and integrated business planning (see Figure 2).
- **Order management systems.** You can use an order management system to enable near-real-time visibility of inventory and lead time across channels, as well as near-real-time expected time of consignment arrival.

Figure 2

Enterprises Plan To Adopt Collaborative Supply Networks Platforms



Note: Percentages may not total 100 because of rounding.

Base: 1,556 software decision-makers who are significantly involved in their organization's decision-making for manufacturing and supply chain software

Source: Forrester's Software 1 Survey, 2023

We help business and technology leaders use customer obsession to accelerate growth.

FORRESTER.COM

Obsessed With Customer Obsession

At Forrester, customer obsession is at the core of everything we do. We're on your side and by your side to help you become more customer obsessed.

Research

Accelerate your impact on the market with a proven path to growth.

- Customer and market dynamics
- Curated tools and frameworks
- Objective advice
- Hands-on guidance

Learn more.

Consulting

Implement modern strategies that align and empower teams.

- In-depth strategic projects
- Webinars, speeches, and workshops
- Custom content

Learn more.

Events

Develop fresh perspectives, draw inspiration from leaders, and network with peers.

- Thought leadership, frameworks, and models
- One-on-ones with peers and analysts
- In-person and virtual experiences

Learn more.

Contact Us

Contact Forrester at www.forrester.com/contactus. For information on hard-copy or electronic reprints, please contact your Account Team or reprints@forrester.com. We offer quantity discounts and special pricing for academic and nonprofit institutions.

Forrester Research, Inc., 60 Acorn Park Drive, Cambridge, MA 02140 USA
Tel: +1 617-613-6000 | Fax: +1 617-613-5000 | forrester.com