

Trends like the integration of cloud-based AI and sustainability and the game-changing impact of real-time visibility are shaping the trajectory of supply chain evolution as they drive retailers to implement supply chain platforms that facilitate synchronization of planning and execution.

# Synchronizing the End-to-End Supply Chain Reduces Costs and Increases Responsiveness

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## Introduction

In the dynamic landscape of global supply chains, the need for enhanced visibility and adaptability has never been more pronounced. Retail supply chain executives acknowledge the imperative of investing in comprehensive end-to-end (E2E) supply chain platforms to address historical rigidity and navigate complex environments effectively. This paper explores the pivotal role of digital technology in reshaping supply chains, drawing insights from recent IDC documents and surveys, and delves into the benefits, considerations, emerging trends, and the critical intersection of resiliency and efficiency.

The digital transformation of the supply chain enables E2E supply chain synchronization for retailers to reduce costs, increase efficiency, and improve responsiveness. E2E supply chain synchronization provides full ecosystem visibility, enabling greater collaboration while reducing waste, improving visibility, and enhancing agility. Retailers that invest in cloud-based intelligent supply chain platforms and leverage data effectively for planning and execution perform better. Companies adopting digital supply chain solutions have experienced increased visibility and risk reduction.

## The Top Priorities of Retail Supply Chain Executives: Drive Efficiency and Improve Agility

Retail supply chain executives recognize the need for full ecosystem visibility and are prioritizing reducing costs and risks, eliminating waste, and driving efficiency. Achieving objectives demands visibility along a synchronized end-to-end supply chain. According to IDC's March 2023 *Supply Chain Survey*, the top priorities for retail supply chain executives are to drive efficiency and improve agility, with 25.6% reporting reducing costs and eliminating waste as their primary focus. Improving visibility in the supply chain is seen as the most important way to mitigate risk by 40% of retailers, with 33% focusing on improving visibility end to end rather than at any single point.

Retailers are planning to invest in E2E supply chain synchronization, with a focus on reducing costs and driving efficiency, coupled with upstream and downstream service improvements. Supply chain applications provide the foundation to achieving overall system visibility. Priorities include responding more quickly to supply disruptions or changes, improving supply chain resiliency, and becoming more customer centric and improving service performance.

## AT A GLANCE

### WHAT'S IMPORTANT

End-to-end supply chain synchronization will help retailers dynamically orchestrate and react to supply chain (and customer) needs. The benefits of end-to-end supply chain synchronization include:

- » Enhanced efficiency and productivity through digital transformation
- » Improved visibility and risk mitigation
- » Agile response to market dynamics

In the next 12 months, retailers expect to achieve near-term business improvements from investments in supply planning (22.0%), inventory management/optimization (21.1%), sales and operations planning (20.3%), and demand sensing/demand planning (19.2%), according to IDC's *Supply Chain Survey*. These investments set retailers up for continued success and, when made with a supply chain platform provider, ease continued integration of best practices and the latest innovations for the future.

Retailers must plan holistically for future macroeconomic disruptions. Synchronizing planning with execution can improve responsiveness and eliminate waste in inventory, fuel, packaging, and labor, directly addressing sustainability concerns. When retailers apply a long-term lens to supply chain planning, sustainable operations is the number 1 focus area (22.8%), followed by supply chain networks/ecosystems (22.5%). 45% of retailers report that cloud/SaaS deployments improve overall supply chain visibility, according to IDC's *Supply Chain Survey*.

## Benefits

The benefits of investing in supply chain platforms that enable end-to-end supply chain synchronization include the fundamental flip to being able to dynamically orchestrate and react to supply chain (and customer) needs. Benefits that retailers should keep in mind while budgeting for supply chain investments include the following:

- » **Enhanced efficiency and productivity through digital transformation.** The journey from a back-office "cost center" to a front-office "opportunity center" is imperative for supply chains. IDC's surveys highlight that digital competencies are central to unlocking new business models. Retail supply chain executives prioritize efficiency, with 25.6% focusing on cost reduction and waste elimination. A seamless, synchronized E2E supply chain improves overall productivity and efficiency measures, enhancing organizational performance.
- » **Improved visibility and risk mitigation.** Visibility is a key driver for retail supply chain executives, with 40% recognizing it as the most important way to mitigate risk. Investment priorities emphasize supply chain applications, with 81% considering them integral to system visibility. Retailers target end-to-end visibility, understanding the significance of real-time information in reducing uncertainties and minimizing disruptions.
- » **Agile response to market dynamics.** The focus on reducing inefficiency and waste aligns with investments in supply planning, inventory management, and sales and operations planning. Retailers prioritize responding quickly to supply disruptions (23.8%) and improving supply chain resiliency (20.4%). This dual approach supports both efficiency-driven inventory management and resilience in the face of evolving market dynamics.

## Considerations

The path forward is not always a straight line, and it is likely that challenges slow even the most well-developed plan to achieve better supply chain performance and business outcomes. Considerations that retailers should keep in mind while developing strategic plans for the supply chain include the following:

- » **Complexities in inventory management.** The National Retail Federation notes that inventory distortion costs the retail industry \$224 billion annually. The intricate nature of modern supply chains, given fickle consumers, international complexities, and reliance on third-party entities, poses challenges in inventory management. Traditional just-in-time methodologies faced disruptions during the COVID-19 pandemic, leading to both

overstocking and product unavailability. Striking a balance between well-planned lean assortment/inventory levels and ensuring flexibility and business continuity becomes critical considerations.

- » **Challenges in forecasting and customization.** Fickle consumers upset the best laid plans and challenge traditional forecasting methods. Nuances in demographics and specific consumer preferences, cultural factors, and regulatory frameworks require robust supply chain networks. Compliance was ranked as the number 1 external challenge in IDC's *Global Retail Survey*. Collaboration with suppliers becomes vital in overcoming inventory management challenges and ensuring adaptability to dynamic market demands.
- » **Ethical considerations in AI integration.** As organizations embrace AI, machine learning (ML), and data analytics for automation and predictive intelligence, ethical considerations arise. The responsible use of AI requires organizations to address biases in algorithms, ensure transparency, and train the workforce for effective collaboration with AI systems.

## Trends

Trends that retailers should keep in mind while planning for the future of the supply chain include the following:

- » **Integration of cloud-based AI for supply chain synchronization.** Retailers with digital supply chain platforms exemplify the integration of cloud-based AI in achieving end-to-end synchronization. The benefits are magnified when platforms facilitate demand sharing, which ensures visible inventory and enables agile delivery. The success of this AI-based project highlights the trend of leveraging cloud-based AI to enhance supply chain synchronization.
- » **Focus on sustainability in E2E supply chain planning and execution.** Retailers emphasize long-term sustainability in supply chain planning, with 22.8% focusing on sustainable operations. The integration of cloud/SaaS deployments is identified by 45% of retailers as a means to improve overall supply chain visibility. This trend aligns with the growing importance of sustainability and visibility in mitigating risks and optimizing supply chain operations.
- » **Real-time visibility as a game changer.** Recent technological advancements, including IoT, AI/ML, 5G, drones, and robotics, coupled with software platforms enable real-time end-to-end visibility in the supply chain. This trend empowers organizations to track product status, optimize transportation routes, and make informed decisions based on real-time data. Real-time visibility is recognized as transformational, addressing the historical challenge of achieving visibility throughout the supply chain.

## Recommendations for Retailers

- » **Improve visibility from end to end.** Real-time visibility is transformational — retailers can only respond to information they have.
- » **Connect the dots between planning and execution.** The ability to sense demand and respond from end to end is game changing. What good is data if retailers don't use it in a timely fashion?
- » **Invest in an E2E cloud-based intelligent supply chain platform.**

- » **Focus on synchronization.** End-to-end supply chain synchronization acts as a force multiplier on the value of each of the supply chain components, reducing costs and improving customer satisfaction.

## Conclusion

The digital transformation of supply chains presents a paradigm shift with profound implications. The benefits of enhanced efficiency, improved visibility, and agile response to market dynamics underscore the strategic importance of supply chain technologies. However, considerations such as the complexities of inventory management, challenges in forecasting, and ethical considerations in AI integration necessitate a balanced approach.

Trends such as the integration of cloud-based AI, a focus on sustainability, and the game-changing impact of real-time visibility further shape the trajectory of supply chain evolution. As organizations navigate this transformative journey, the interplay between resiliency and efficiency emerges as a critical factor. Striking the right balance, leveraging digital capabilities, and staying attuned to emerging trends will be pivotal for organizations aiming to thrive in the digitally driven future of supply chain management.

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## About the Analyst



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As group vice president, Leslie Hand is responsible for the research direction and teams supporting IDC Retail Insights and IDC Financial Insights. Hand works closely with the teams to help guide technology suppliers and buyers to develop best practices and strategies, aligned with where they are, and where they want to go, leveraging IDC quantitative and qualitative data sets.

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