LeanDNA

FACTORY FORWARD: NAVIGATING NEXT-GEN SUPPLY CHAIN OPERATIONS

How Manufacturers like Johnson Controls, Spirit AeroSystems, and Safran are Setting New Standards

INTRODUCTION

This ebook serves as a comprehensive guide to navigating the complexities of modern supply chains, drawing insights from real-world case studies and recent research.

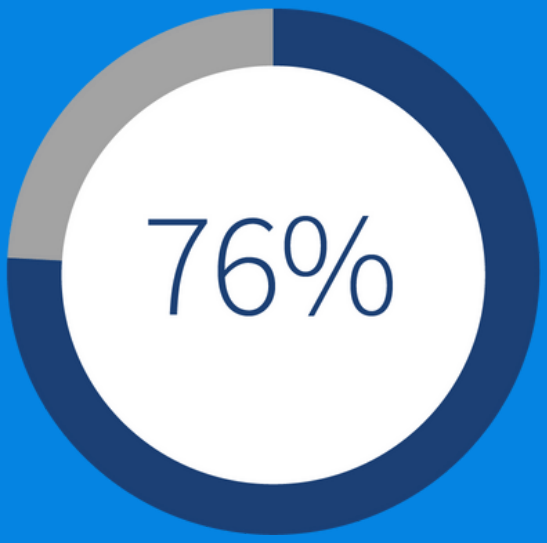
In today's fast-paced and interconnected business environment, effective supply chain management is crucial for organizations to remain competitive and meet customer demands. With the rise of globalization, advancements in technology, and increasing customer expectations, supply chain leaders face a multitude of challenges and opportunities. Discover how embracing innovative solutions and leveraging data-driven decision-making can transform your supply chain operations, enabling you to not only respond to market demands swiftly but also anticipate future trends and prepare accordingly.

Table of Contents

1 Leveraging Data-Driven Insights for Strategic Decision Making

In the age of big data, harnessing data-driven insights has become imperative for supply chain leaders to make informed decisions and drive strategic initiatives. The digital era has ushered in an unprecedented volume of information, transforming how organizations navigate the complex landscape of global supply chains. Yet, with 76% of supply chain executives acknowledging the existence of critical blind spots due to a lack of predictive data, the challenge becomes not just about collecting data, but making it actionable. Furthermore, as organizations dedicate an average of 35% of their time to manually entering, tracking, or managing data, the inefficiency of traditional data management processes is brought into sharp focus.

This scenario underscores a pressing need for more sophisticated data management strategies that not only streamline operations but also unlock the potential of data to drive strategic initiatives. Against this backdrop, leveraging data-driven insights emerges as an imperative, not just for enhancing operational efficiency, but for cultivating a competitive edge in the increasingly complex and unpredictable environment of supply chain management.



76% of executives don't have a predictive view of supply and demand, turning to technology for solutions

What can you do?

Implement Advanced Analytics Tools: Invest in advanced analytics tools and technologies to analyze large volumes of data, uncover insights, and identify opportunities for improvement. Leverage predictive analytics, machine learning, and AI-driven algorithms to improve forecasting accuracy, identify trends, and optimize inventory levels.

Establish Data Governance Framework: Develop a robust data governance framework to ensure data quality, integrity, and security across the organization. Define data standards, policies, and procedures for collecting, storing, and analyzing data, and establish accountability mechanisms to maintain data accuracy and consistency.

Foster Data-Driven Culture: Cultivate a data-driven culture within the organization by promoting data literacy, training employees on data analysis tools and techniques, and encouraging data-driven decision making at all levels. Empower employees to access and analyze data independently, and incentivize data-driven behaviors to drive continuous improvement.

Johnson Controls Reduces Lead Times with Real-Time Visibility

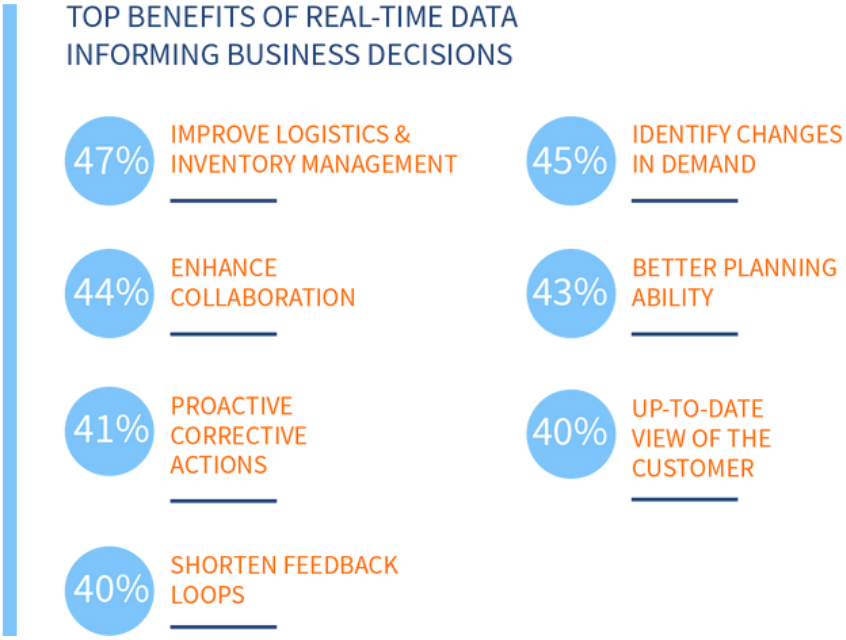
Johnson Controls, a global leader in building technology and services, faced challenges with siloed data and disparate systems hindering visibility and collaboration across their supply chain network. By implementing LeanDNA's cloud-based platform, Johnson Controls achieved real-time visibility into inventory levels, supplier performance, and production processes. As a result, Johnson Controls improved efficiency, reduced lead times, and enhanced customer satisfaction.

> “We were ready for a digital transformation of our supply chain operations, and while our inventory data also needed work, we knew that waiting for the output to be perfect was just one more way to delay this process. What we did was to start with what we had and continue to troubleshoot along the way…[our] data is processed by LeanDNA and turned into useful information our teams can actually use and take actions on, giving our team the competitive edge necessary to meet and exceed our customers’ expectations.”
>
> **Mandeep Sahota**
> (former) Vice President of Operations

2 Enhancing Visibility and Collaboration Across the Supply Chain

Amid the anticipation of future disruptions, today's dynamic and interconnected business landscape underscores the importance of visibility and collaboration in effective supply chain management. The ramifications of inadequate preparation for such disruptions can be profound; a staggering 36% of businesses express concerns about the potential fallout of fractured supplier relationships.

However, organizations that prioritize the development of robust supplier partnerships are experiencing significant benefits, including a remarkable 2x growth rate. Moreover, investments in technology are unlocking better decision-making processes, with 44% of executives recognizing enhanced collaboration as one of the key benefits. Leveraging real-time data not only improves logistics and inventory management but also fosters cross-team collaboration, facilitating seamless coordination and optimized performance across various supply chain functions.



What can you do?

Implement a Cloud-Based Supply Chain Orchestration Platform: One effective strategy is to invest in a cloud-based supply chain platform that centralizes data, streamlines communication, and provides real-time visibility into inventory levels, production status, and supplier performance.

Leverage Predictive Analytics and AI: Harnessing the power of predictive analytics and artificial intelligence is key to anticipating demand fluctuations, identifying supply chain risks, and optimizing inventory levels. By implementing AI-driven forecasting models and demand sensing algorithms, organizations can significantly improve demand forecasting accuracy, reduce stockouts, and enhance inventory optimization.

Spirit's Blueprint for Integrated Supply Chains

Spirit AeroSystems, a leading manufacturer of aerostructures, provides a compelling example of the benefits of enhanced visibility and collaboration. Facing challenges with managing inventory levels and supplier collaboration, Spirit AeroSystems turned to LeanDNA's supply chain optimization technology. Through this partnership, Spirit AeroSystems achieved real-time visibility into supply chain risks and opportunities, improved collaboration with suppliers, and reduced inventory levels by an impressive 16%.

By leveraging LeanDNA's Supplier Connect, Spirit AeroSystems established a centralized channel for communication with over 300 suppliers. This allowed them to streamline collaboration, share critical information, and drive continuous improvement initiatives across their supply chain network. With their improved visibility and collaboration, Spirit AeroSystems was able to make more data-driven decisions and enhance supply chain resilience.

> "Exceptional execution in the supply chain is critical to Spirit's long-term success. Empowering procurement teams to make better daily decisions and standardizing their work across manufacturing sites will further our ability to meet and exceed customer expectations now and in the future. LeanDNA's centralized supply chain planning solution gave us the insights necessary to adjust inventory, streamline supplier collaboration, and improve on-time delivery for our customers around the globe."
>
> **Jim Cocca**
> VP of Supply Chain Execution

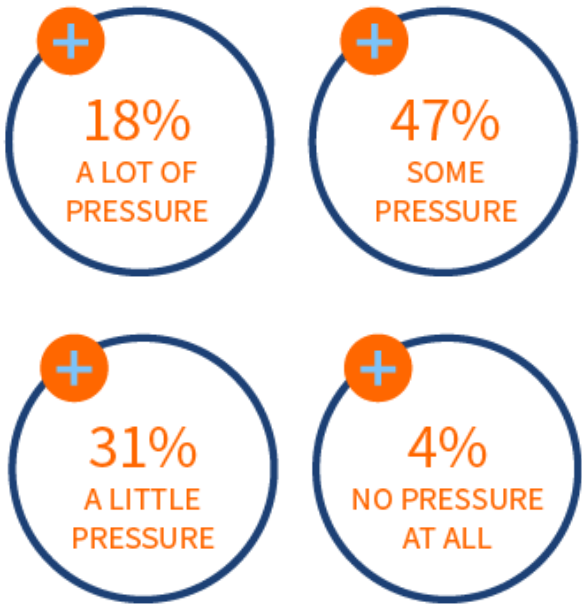
3 Optimizing Inventory Management for Operational Excellence

In the dynamic world of global manufacturing, effective inventory management emerges as a cornerstone of operational excellence. It balances the scales of supply and demand, fortifies financial health, and ensures customer contentment. However, a significant challenge remains: 96% of supply chain executives are under pressure to balance preparedness for disruptions with the need to avoid excess inventory. This statistic sheds light on the struggle many face with legacy systems that lack transparency and impede operational fluidity.

As modern supply chains become increasingly complex, there's a compelling call for a refined approach to inventory management. Optimizing inventory management goes beyond just adjusting stock levels; it's about building an operation that is agile and resilient, ready to adapt to changes and capture new opportunities.

96%

execs are under at least a little pressure to balance preparedness and inventory



What can you do?

Embrace Lean Inventory Principles: Central to achieving operational excellence is the adoption of lean inventory principles that streamline operations and minimize waste. One of the cornerstone methodologies in this domain is the implementation of a Plan For Every Part (PFEP). This detailed planning approach involves cataloging every item in inventory with specific data, including usage rates, replenishment times, and storage locations. PFEP serves as a strategic framework that supports Just-In-Time (JIT) delivery, facilitating a more precise, controlled flow of materials.

Leverage ABC-XYZ Analysis and SKU Rationalization to streamline inventory: Prioritize based on value and demand variability, optimizing inventory levels with a nuanced strategy. Combine frequent orders for steady-demand X items, adjusted scheduling for fluctuating-demand Y items, and careful management for unpredictable Z items. This approach balances cost-efficiency with service goals, ensuring a more targeted inventory strategy.

Implementing Change: The MSA Safety Story

MSA Safety, a leader in developing safety equipment, faced the universal challenge of balancing inventory efficiency with the need to meet diverse customer demands. The post-pandemic supply chain landscape, marked by disruptions and uncertainty, highlighted the criticality of evolving their inventory management strategies. To address these challenges, MSA Safety embarked on a digital transformation journey, focusing on optimizing their inventory management. The introduction of LeanDNA marked a pivotal shift, enabling MSA to transition from static, inefficient processes to a dynamic, data-driven approach.

The platform facilitated a more nuanced understanding of inventory needs, highlighting where adjustments were necessary to prevent overstock and understock situations. By integrating real-time data analytics, MSA Safety could more accurately forecast demand for their Assemble-to-Order (ATO) products, ensuring that inventory levels were always aligned with actual market needs.

> “It would not be unusual for a buyer in Pittsburgh to complete a task and then need to share information with a production planner in Jacksonville, North Carolina to minimize the potential for a stockout or to expedite a customer order. Our teams can all interact within LeanDNA’s platform – our supply planning, demand planning, production planning, buyers, and sourcing team all have access to streamline communication and improve efficiency.”
>
> **Eric Blanton**
> Global Purchasing Manager

4 Mitigating Supply Chain Risks and Building Resilience

Supply chain disruptions are more than just obstacles; they test the resilience of global supply networks. In response, a majority of executives are taking steps to strengthen their supply chains, highlighting resilience as crucial for future uncertainties. The goal is complex—balancing preparedness with minimizing excess inventory reflects a significant shift towards adaptability.

Compounding the issue, 92% of supply chain executives admit to often making decisions in the dark due to a lack of predictive insights. This highlights an imperative need for strategies that utilize technology to enhance agility and cultivate strong partnerships, building supply chains that are not just robust but also efficient, responsive, and in tune with the ever-changing global market demands.

LEVEL OF SUPPLY & DEMAND VISIBILITY CURRENT TECH STACK PROVIDES

76% Don't have a predictive view of supply & demand

18% HISTORIC VIEW ONLY

58% REAL-TIME AND HISTORIC VIEW

24% PREDICTIVE, REAL-TIME AND HISTORIC VIEW

What can you do?

Implement Risk Management Framework: Develop a comprehensive risk management framework to identify, assess, prioritize, and mitigate supply chain risks. Leverage technology solutions to monitor supply chain performance in real-time, identify potential disruptions and trigger proactive risk mitigation measures.

Implement Predictive Analytics: This approach empowers leaders with the foresight necessary for proactive, rather than reactive, maneuvering amidst the uncertainties of supply chain dynamics.

Implement a Clear-to-Build approach: This method ensures that all necessary components are available before production commences, significantly reducing the risk of delays and disruptions. By implementing a clear-to-build system, companies can enhance their ability to respond swiftly and efficiently to changes in demand and supply chain dynamics.

Safran Seats GB: A Case Study in Transformation

Safran Seats GB, a leading aerospace and defense manufacturer, faced significant challenges in managing supply chain risks and disruptions. Struggling with critical shortages and excess inventory, the company sought a solution to streamline its operations and enhance its resilience against unforeseen disruptions.

In partnership with LeanDNA, Safran Seats GB achieved a significant transformation, reducing its inventory by 36% in just three months. This improvement was pivotal, not just for optimizing inventory levels but also for bolstering the company's ability to respond to supply chain challenges with agility. By reducing reliance on manual processes and improving data accuracy, the Safran strengthened its position in the competitive aerospace and defense sector.

> "Before LeanDNA, our inventory accuracy was a guessing game, and we were constantly in reactive mode. Now, we have clear visibility and actionable data at our fingertips, which has drastically improved our supply chain responsiveness"
>
> **Carolanne Wilson**
> Head of Operations Supply
>
> SAFRAN

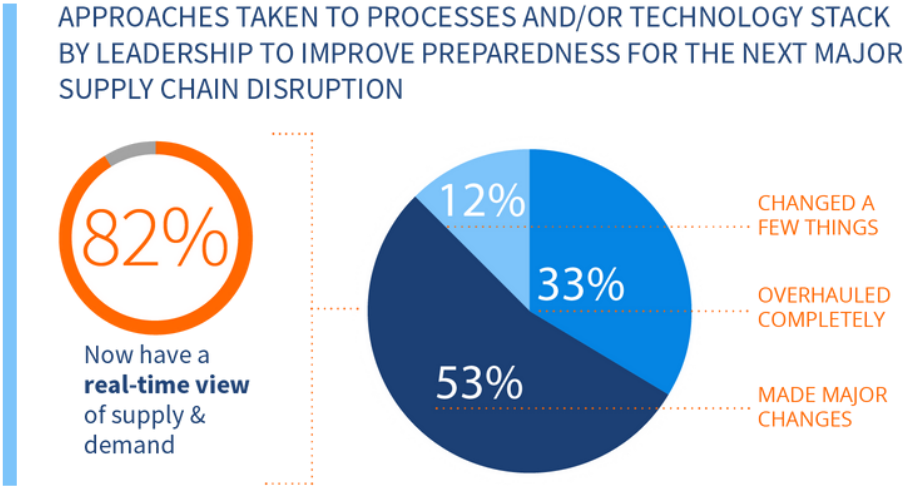
5 Future Trends and Innovations in Supply Chain Management

Looking ahead, supply chain leaders must prepare for emerging trends and innovations that will reshape the industry landscape. Top trends include:

- Digital Transformation: Embrace digital technologies such as IoT, blockchain, and robotic process automation to enhance visibility, automate processes, and improve decision-making across the supply chain. Organizations increasingly focus on tech stack improvements, with 86% of executives making major changes to their processes and/or technology stacks.

- Sustainability and Resilience: Integrate sustainability practices and resilience strategies into supply chain operations to minimize environmental impact, reduce risk exposure, and enhance long-term sustainability.

- Supply Chain Transparency: Enhance transparency and traceability throughout the supply chain to ensure ethical sourcing, regulatory compliance, and consumer trust.



What can you do?

Embrace Digital Technologies: Invest in digital transformation initiatives to digitize supply chain processes, automate manual tasks, and leverage data-driven insights for strategic decision-making. But, digital transformation doesn't happen overnight. As Vatsal Gandhi, Executive Director of Global Supply Chain at Modine shared in a recent webinar:

> "Gradual digital transformation is the path to enhanced adaptability—small wins build confidence and set the stage for broader transformation."
>
> **Vatsal Gandhi**
> Executive Director of Global Supply Chain

Prioritize Sustainability and Resilience: Incorporate sustainability practices and resilience strategies into supply chain operations to reduce environmental footprint, mitigate risk exposure, and build long-term resilience. Implement circular economy principles, renewable energy sources, and eco-friendly packaging to minimize waste and resource consumption.

Enhance Supply Chain Transparency: Foster transparency and traceability throughout the supply chain to ensure ethical sourcing, compliance with regulatory requirements, and consumer trust. Implement supply chain visibility solutions, blockchain platforms, and digital certification programs to track product origins, monitor environmental impact, and verify social responsibility practices.

Driving Supply Chain Excellence in the Digital Age

In conclusion, navigating the complexities of modern supply chains requires a strategic and proactive approach, leveraging data-driven insights, advanced technologies, and collaborative partnerships. By adopting best practices, embracing innovation, and prioritizing resilience, organizations can optimize supply chain performance, mitigate risks, and drive competitive advantage in the digital age.

For a detailed analysis of the supply chain insights presented in this ebook, read the Supply Chain Readiness Index research study, conducted by Wakefield Research on behalf of LeanDNA. The research provides valuable insights from 250 supply chain executives, key findings, and actionable recommendations to help organizations navigate the challenges and opportunities of the modern supply chain landscape.

LeanDNA is a leading intelligent supply chain execution platform that enables supply chain teams with a single source of truth for inventory management and production readiness. This cloud-based platform synchronizes execution across the supply chain, empowering manufacturers to prioritize and collaborate to resolve critical material shortages and excesses. With LeanDNA, manufacturers improve on-time delivery and working capital levels by gaining visibility into current and incoming materials, actions based on inventory criticality, real-time collaboration with suppliers, and the ability to track progress toward inventory optimization goals.

Ready to see us in action? Sign up for a demo.