

6 Reasons Why Microsoft is a Leader in AI and Azure-powered Supply Chain Optimization

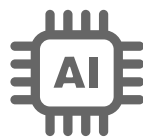


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Introduction

It doesn't matter if you're a retailer or brand CPG company, a manufacturer or a distributor, supply chain challenges continue to disrupt the way companies sell products and services. With interdependencies across supply chain networks increasing, the risk of failure in one part of the chain can have a negative effect on the rest of the business and all its customers.

More than 75 percent of supply chain executives are seeing higher disruptions in their supply chains than three years ago— at the height of the pandemic, according to [McKinsey](#), a global management consultancy firm. So, it's critical for companies to be able to shore up vulnerabilities and adjust to disruptions going forward. With so much on the line, an intelligent and agile supply chain has never been more important.

Still, while many business leaders know that modernizing could help with making supply chains more agile, the process of going digital can be difficult. Data is siloed in different locations throughout the supply chain ecosystem and difficult to pull together meaningfully. The thought of creating a cohesive 360-degree view can often feel overwhelming or impossible, but with **Hitachi Solutions** and the **Microsoft Dynamics 365 Supply Chain Platform**, it doesn't have to be that way.

Throughout this eBook, you'll learn how our solutions and tools help empower businesses in the consumer-packaged goods, retail, and manufacturing industries to navigate the complexities of the modern supply chain. From advanced analytics and predictive capabilities to enhanced security and sustainability commitments, you can use this eBook as a guide to understand the forefront role that Hitachi Solutions and Microsoft are playing in reshaping supply chain dynamics.

Common Challenges



Highly Customized, Outdated ERP systems

Many organizations continue to rely on bloated legacy systems and one-off approaches to supply chain management, hampering the real-time decision making required to anticipate disruptions and solve problems proactively. Because legacy systems use data warehouses, they don't support real-time updates and integrations with modern data analysis platforms. They bring data in on a scheduled or batch basis, and data must be extracted and analyzed elsewhere.



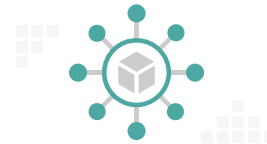
Distribution Disruptions

Any interruption in the flow of process involving the production, sales, and distribution of specific goods or services is a disruption that must be dealt with and remedied. While the pandemic is over, it was the largest macro event ever to affect supply chains worldwide. And 48 percent of companies expect distribution disruptions, like the lack of carrier availability and weather-related events, to increase, according to a recent study.



Demand Fluctuations

Fluctuating demand makes it challenging to maintain optimal inventory levels, leading to overstocks or stockouts, and costing the business money. Excessive inventory can tie up working capital and lead to obsolescence, while inadequate inventory can result in lost sales opportunities. In addition, over or undershooting demand deeply affects customer satisfaction and retention.



Order & Fulfilment Challenges

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Resiliency Starts with Visibility



Supply chains must be resilient; that is, agile and able to adapt to sudden change and unexpected risk. And it starts with data and access to it. In recent [research](#) from Harvard Business Review Analytic Services commissioned by Microsoft, 65 percent of executives say a lack of real-time supply chain data is an obstacle to effective operations. Even more stunning: just 11 percent have a modern integrated digital solution for their entire supply chain.

These challenges can impede operational efficiency and decision-making capabilities. Moreover, they pose a prevalent challenge of limited visibility and transparency across the entire supply chain network. Consequently, the lack of clarity leads to a lack of insights into inventory levels, demand patterns, supplier performance and a host of other issues.

The experts at Supply Chain 24/7 posit that true supply chain resilience consists of two complementary components:



Resistance Capacity:

The ability to mitigate damage caused by a disruptive event by either avoiding it entirely, or by reducing the period of time between when the event takes place and when the supply chain starts to recover from its effects.



Recovery Capacity:

The ability to return to a supply chain's original state in the wake of a disruptive event. The recovery process, itself, consists of two phases — stabilization and return.

Although there are many different schools of thought around how to build resistance and recovery capacity, it's almost universally agreed upon that true supply chain resilience requires preparedness, responsiveness, cross-channel transparency, and— most importantly— supply chain flexibility. Check out our Hitachi Solutions' [blog: Supply Chain Resilience: Why It's More Important Than Ever](#), for 10 strategies you can use to improve your supply chain resilience, as well as our [wide range of industry-specific systems](#) that leverage the entire Microsoft stack to provide you with a comprehensive view of supply chain activity including potential bottlenecks and vulnerabilities.

What is Most Important in a Resilient Supply Chain?

28.8%

Predictability

17.3%

Speed of response

26.5%

Visibility

27.4%

Flexibility

Hitachi Solutions [poll](#) by Senior Manufacturing Director Jeff Winter

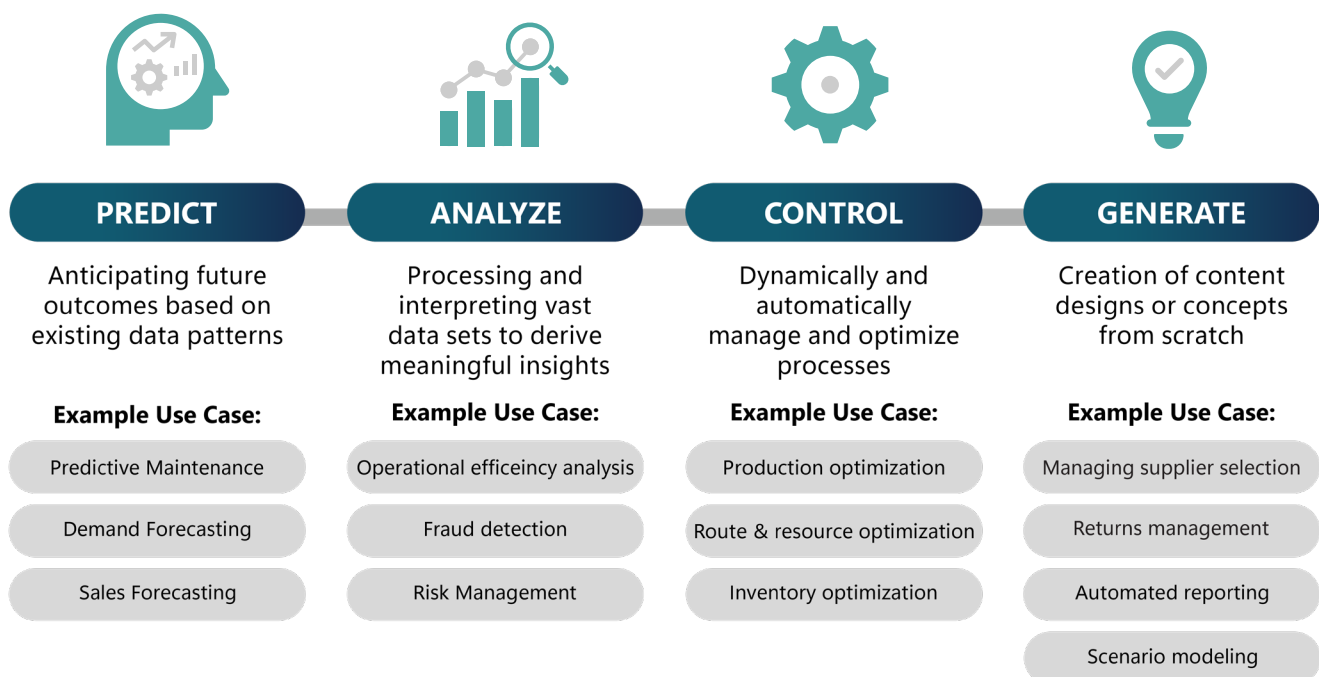


AI Makes the Supply Chain Intelligent

Supply chains are a prime area for the application of AI, due to the vast amounts of critical business data and processes involved, and companies are increasingly adopting cloud-based supply chain systems with generative AI and machine learning capabilities.

From demand forecasting, to production floor control, to delivery, AI can help supply chain and logistics leaders make decisions more quickly and accurately because it can be used to gather, organize, and analyze data at lightning-fast speeds— speeds that are simply impossible for humans. Companies can then proactively identify potential challenges so they can minimize them or avoid them completely.

Primary Uses of AI in Supply Chain



Microsoft's Supply Chain Platform



Achieving resiliency requires better supply chain planning, which depends on data-driven insights. Data platforms with AI capabilities that collect and harmonize data from various systems and devices require an integrated, modern infrastructure.

A fragmented legacy environment can hamper the real-time decision making required to anticipate disruptions and solve problems proactively. And, unfortunately, most organizations still rely on legacy systems and one-off, customized applications to manage their supply chain rather than an integrated platform. This puts them at a severe competitive disadvantage because **companies need cloud-powered systems that are integrated across functions** like the [Microsoft Supply Chain platform](#).

Enabling real-time orchestration of disparate systems weaves resilience into the fabric of every supply chain.

Supply Chain platform provides the building blocks across Microsoft Azure, Microsoft Dynamics 365, Microsoft Teams, and Microsoft Power Platform for organizations to develop or independently adopt capabilities for their specific supply chain needs. It's an open, flexible, orchestration center that works natively with existing data and applications, so companies can make the most of their current supply chain investments.

At Hitachi Solutions, we want to make it easy for companies to adopt new solutions in an incremental manner, if necessary, while ensuring that those solutions are interoperable with their existing landscape to achieve faster time to value. It's all about doing more with less. This is one of the hallmarks of [Dynamics 365 Supply Chain Management](#). It's the core building block of the entire supply chain platform. The fact that it allows organizations to start digital transformation from any priority area, is a key benefit.



Supply Chain Management provides best-in-breed functionality for:



Advanced Warehouse Management

Robust warehouse management capabilities, including support for advanced picking strategies, cycle counting, and cross-docking. By leveraging features such as mobile barcode scanning and RFID integration, organizations can streamline warehouse operations and improve order accuracy.



Inventory Optimization

Real-time visibility into inventory levels, stock movements, and warehouse space utilization. By accurately forecasting demand and automating replenishment processes, organizations can ensure optimal inventory levels while minimizing carrying costs.



Analytics and Reporting

Built-in analytics and reporting tools provide actionable insights into warehouse performance and inventory trends. Organizations can analyze key metrics such as fill rates, on-time deliveries, and order cycle times to identify areas for improvement and make data-driven decisions.

Let's look further at how AI-infused technology is driving Supply Chain Management in ways that truly make Hitachi Solutions and Microsoft leaders in Supply Chain optimization and innovation.



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Copilot: the Assistant that Drives Efficiency

With the rise of generative AI, Microsoft Copilot has incredible capabilities that stand to reinvent nearly every business process. Consider the value of supply chains scenarios where generative AI can be used to efficiently retrieve company data through conversation-based interactions with Copilot:

- Show me all orders which were not delivered on-time and in-full (OTIF) in the last 30 days
- Estimate how much of our order backlog is impacted by these late deliveries
- Suggest three questions that will help the supplier dig into the root cause of the issue
- Write a short recommendation requesting the supplier participate in our monthly supplier review until OTIF is above 97 percent

Then armed with this data, supply chain teams can take actions based on insights while in the flow of work. It helps promote productivity and better collaboration among internal, cross-functional employees as well as external stakeholders across the value chain.

Georg Glantschnig, VP, Microsoft Dynamics 365 ERP, said: “Generative AI and Microsoft Copilot have opened the door for us to reimagine how workers and employees engage with their everyday tools and workflows. Empowering workers is no longer just about building new workspaces to work from, but rather about how we surface relevant information and enable quicker decision-making in the flow of work.”

Before long, we are likely to see supply chain teams trusting their AI-powered copilots to take actions against specific problems, identified in patterns, such as resolving shipment delays with a specific action. Supply chain planners can simply delegate the planning to their copilot and grant final approval when the plan is ready for execution, saving supply chain teams countless hours and greatly improving productivity and response times.

Elevate Forecast Accuracy with AI-driven Demand Planning



Inaccurate forecasts can lead to lost revenue and inefficiency in the supply chain, but providing forecasts infused with intelligence will undoubtedly lead to more accurate and effective demand plans. The direct impact can be measured in increased revenue, fewer stockouts, and a host of other positive outcomes.

Demand forecasting is an area starting to see pervasive use of generative AI. Organizations have already been using machine learning algorithms to improve their forecast accuracy. However, trust in these system-generated forecasts is still not high, due to the lack of available data to fine-tune the forecasts. As a result, demand planners and other stakeholders continue to spend a significant portion of their time manually analyzing trends and anomalies.

The new [demand planning](#) capability in Dynamics 365 Supply Chain Management helps organizations better predict demand using AI and machine learning models. These AI-powered forecast models automatically select the best algorithms and parameters, and planners can fine-tune the constraints based on their business needs.

By tailoring forecast inputs, users can plan with confidence using a guided no-code approach and can simulate the impacts of changing the forecast models before they are applied. They can also plug in their own machine-learning models that are custom-built for their business needs. With these options, planners have an increased level of trust and can rely on the forecast, knowing how it's generated.

Demand forecasts using a legacy system are limited because granular forecasts would take days or weeks and rely on historical data only. On-premises, legacy systems weren't built for today's data. This is where AI and powerful modern data estates come in. An Azure-based modern data estate takes unstructured, semi structured, fully structured data and everything in between. And the Microsoft Supply Chain platform's demand planning engine consolidates all that data and **transacts it in real time.**

3

Communicate Across the Value Chain

People want to be able to collaborate with their colleagues and partners right then and there, whether they're working on a customer situation or trying to resolve a supply chain issue. Collaboration capabilities need to be infused and embedded in everything we do.



— Emily He, Corporate Vice President, Microsoft Business Applications

Timely sharing of information, demand signals, and market intelligence can facilitate collaborative decision-making and enhance overall supply chain responsiveness. Effective communication across a supply chain isn't just an internal issue, it also includes external suppliers, transportation companies and others. Organizations need the integration to be to reach all these participants in real-time and with tools that work for all participants.

Enter Microsoft Teams. [Microsoft Teams](#) is a chat-centered collaboration platform that brings together collections of people, content and tools to get things done. The potential value for supply chain practitioners is immense. With secure, built-in Teams integration, you can collaborate with internal stakeholders and external suppliers in real time to mitigate supply constraints, secure new supply sources, troubleshoot transportation issues, and communicate upstream and downstream impacts based on changes.

Reduce Errors and Increase Uptime with IoT

4

Studies show that about 25 percent of manufacturers' operating costs are associated with maintenance. On average about 30 percent of those maintenance costs are unnecessary expenditures, such as bad planning or the carrying costs of spare parts. There are also variable costs due to quality issues and extra scrap. And those are just the direct costs. If you look at the indirect costs, you can add decreased customer satisfaction and on-time delivery problems. That's not a good story.

Businesses need to keep operations running smoothly and to do so need to maximize the uptime of all equipment, and have the tools to act fast to prevent damaging failures. By fitting equipment and other assets with automatic electronic sensors built with IoT technology, companies can increase uptime, throughput, and quality, and proactively manage operations with a real-time view.

[Sensor Data Intelligence](#) for Microsoft Dynamics 365 Supply Chain Management enables organizations to drive business processes in Supply Chain Management, based on Internet of Things (IoT) signals from machines and equipment on the production floor. It's an updated, renamed version of the IoT Intelligence feature that was previously available in Supply Chain Management. Sensor Data Intelligence collects details from machines and equipment and updates asset counter values in Supply Chain Management.

It's a new deployment model where the required Azure components are deployed on an Azure subscription rather than being managed by Microsoft, so companies can customize the feature and integrate it with third-party systems.

5

Support Sustainability and Ethical Practices

Consumers are becoming more conscious of the environmental and social impacts of products that they purchase, and many companies are looking to adopt sustainable practices to meet these expectations. Doing so can provide a two-fold benefit: companies reduce their environmental footprint and at the same time improve their reputation with customers.

This includes finding innovative ways to manufacture, package, ship, use, and dispose of products in a more sustainable manner. Projects focused on efforts like decarbonization, and zero net impact are becoming common for process manufacturers. When AI enters into the sustainability equation, it can do things like analyze how recycled material interacts with raw materials and adjust related processes and specifications in real time.

Microsoft Supply Chain Platform has the tools to help businesses meet their [sustainability goals](#), allowing for greater visibility into the carbon footprint they're making throughout the supply chain. It can track things like ethical and sustainable sources, create sustainability scorecards, provide actionable insights, and allow for public reporting.

Enhance Security and Compliance

6

Organizations are encountering an increased volume of sophisticated threats to their environments—more than ever before. As supply chain partners, vendors and service providers are added to the digital value chain, each addition represents a security vulnerability or risk that needs to be mitigated. Supply chains often involve multiple third-party vendors, each with their own cybersecurity practices. If a vendor has weak security measures, it can expose the entire supply chain to cyber threats. Furthermore, unmanaged IoT devices have also tripled the size of the attack surface area. Securing these devices is a mission-critical objective for any organization.

The Azure-based Microsoft Supply Chain Platform helps organizations create a secure supply chain by detecting and preventing any threat. It provides cyber security, physical management, and endpoint security across the entire supply chain network with multiple levels of security and continuous updates and patches.

Built on the Azure platform, [Microsoft Sentinel](#) delivers intelligent security analytics and threat intelligence across the enterprise. You get a single solution for attack detection, threat visibility, proactive hunting, and threat response. Its simple design is probably one of its bestselling points: one dashboard provides insights based on the data that's combined from multiple systems, firewalls, domain controllers and everything else.



Security has never been more critical, and business and security leaders are facing tougher choices than ever before. Leaders should educate employees and modernize their security and data infrastructure. We provide practical tips on how to do both.

Download the eBook today!

Putting it all Together

Professionals who have grown up in the supply chain arena have been dreaming about innovations and industry-changing technologies for a long time. The solutions are finally here, and we should all feel positive about the future of supply chains as we understand and experience what technology can do.

Smart supply chain leaders know their customers expect them to anticipate likely demand and place inventory in the supply chain ahead of demand. They need to exploit AI and machine learning to drive timely, actionable insights into demand and supply from multiple sources of internal and external data.

Microsoft and Hitachi Solutions are uniquely positioned to deliver AI in supply chain, by integrating built-in Copilot capabilities across our solutions and delivering a secure, composable, extendable, and interoperable platform. With low-code/no-code automation, collaborative actions, process orchestration, and rich supply chain functional capabilities **in a single experience**, we can help you create a tailored ecosystem and confidently apply AI to deliver new value.





How do you Envision the Future State of your Supply Chain?

Hitachi Solutions and Microsoft can help. As the [Microsoft Finance and Supply Chain and Customer Service/Field Service Partner of the Year](#), Hitachi Solutions brings deep industry, technology, and advisory expertise to create integrated solutions leveraging Microsoft Dynamics 365 Supply Chain Management, Azure, Teams, and Power Platform. With those tools, we build the smart solutions manufacturers, retailers, distributors, and CPG companies around the world need to fuel growth and profitability, retain customers, and meet current and emerging needs.

Contact us Today!

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