

# Your Supply Chain Future is Now with Predictive Analytics

Modernize your supply chain today and benefit from a range of innovative capabilities.





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Technological innovation, digitization, and automation are reshaping supply chain operations, including processes, roles, practices, capabilities, and more. While this brings amazing opportunities, there are also significant risks and challenges.

The supply chain of the future will require new data and analytics capabilities. Predictive analytics is no longer a “nice-to-have.” This essential analytics technique is what makes the future of your supply chain a reality now. Real-time analytics and prescriptive analytics will also play bigger roles. You can’t afford to wait to implement these analytics; your competitors are moving fast.

Imagine having the ability to understand how much inventory you need based on more accurate demand forecasts and automatically determining the best supplier.

## What Does the Future Hold?

What does the supply chain of the future look like? It will be automated, respond faster, become more resilient, and be more sustainable. Let’s have a look.

### The Supply Chain of the Future Will be on Auto-Pilot

The supply chain of the future will be more automated, with the use of technologies such as the Internet of Things (IoT), predictive analytics, blockchain, robotics, and even drones. These technologies will enable real-time tracking and monitoring of supply chain processes such as procurement, manufacturing, and distribution of goods. Imagine having the ability to understand how much inventory you need based on more accurate demand forecasts and automatically determining the best supplier. Or finding potential equipment problems before they cause downtime and identifying optimal shipping channels and routes to meet on-time deliveries.

### The Supply Chain of the Future Will Become Faster and More Resilient

From sourcing raw materials to building products to timely delivery, the end-to-end supply chain is subject to constant risk of disruption. Multiple factors can cause disruption such as geopolitical conflicts, natural disasters, labor shortages, material shortages, transportation backups, volatile customer



demand, pandemics, and more. The supply chain of the future will provide visibility, flexibility, and collaboration across the supply chain, and will leverage the power of predictive analytics so organizations can anticipate or rapidly respond to disruptions.

### The Supply Chain of the Future Will be More Sustainable

Supply chains of the future will implement enduring ways to conserve energy and materials to cause less harm to the environment, implement traceability, and preserve the integrity of human welfare. Predictive analytics helps organizations adhere to health and fair labor standards, prioritize suppliers who operate using environmental, social, and economic best practices, develop eco-friendly products and packaging, and more.

### How Will the Role of the Chief Supply Chain Officer Change?

As supply chain needs, processes, and best practices evolve, the role of the Chief Supply Chain Officer (CSCO) also constantly changes. Whether your organization has a dedicated CSCO position or responsibilities fall to another member of the C-suite, the role is becoming increasingly important as organizations realize their supply chains can be a strategic advantage, directly impact the bottom line and customer experiences, and support business goals.

To make supply chains future-proof, CSCOs will see their day-to-day tasks expand beyond traditional priorities to include automation, digitalization, and managing risk and disruption. Achieving success requires the CSCO to partner with other members of the executive team, including the Chief Technology Officer and Chief Sustainability Officer. According to Gartner®, Supply Chain Executive Report: The Future of Supply Chain 2023 (December 2022), "Perception of supply chain teams as an equal strategic partner has reverted to prepandemic levels following a brief spike (47% in 2022 versus 56% in 2020)."

As supply chains require more agility, speed, and transparency, CSCOs will need to integrate disparate systems across the supply chain for a connected ecosystem. They must also implement modern data and analytics technologies to enable new levels of automation, predictive analytics, and real-time data access.

CSCOs will need to improve their ability to predict and mitigate disruption to their supply chain networks, which can stretch across the globe. Supply chain leaders will also be charged with transforming supply chains to make them more responsive, dynamic, and resilient. This transformation could entail a move to a hybrid cloud environment.

CSCOs will increasingly focus on sustainability goals and measuring results. Reaching environmental, social, and governance (ESG) goals—such as increasing fuel efficiency in transportation and delivery fleets, reducing energy and water usage in manufacturing processes, and lowering CO2 emissions across the supply chain—is challenging but increasingly important.

### Is Diversification Making Your Supply Chain Hard to Manage?

Increasing uncertainty is leading to greater supply chain diversification to minimize risk. Diversification offers many benefits. Less dependence on any one supplier, for example, can lead to better prices and the ability to source better quality goods and services. Diversification can help accelerate innovation, open access to new markets, and improve the success of overall ESG efforts.

At the same time, many businesses are diversifying their products and services to drive growth, offset the impact of potential downturns, and deal with rapidly changing customer demand. By expanding their reach, businesses can explore new avenues for sales—and potentially increase their profits and return on investment.

On the downside, diversification increases supply chain complexity as manufacturers add more products, suppliers, and facilities. However, supply chain analytics can help. Predictive analytics spots trends and patterns to help identify where redundancy is necessary and where it can be reduced or eliminated.

As supply chain data becomes even more massive, advanced analytics helps make sense of all the data. Manufacturers can use predictive analytics to obtain a bigger picture of supplier performance, including the likelihood of on-time delivery of quality goods and services, and how well they will comply with ESG policies.

## Are You Able to Adequately Monitor Your Supply Chain and Service Partners?

Supply chain as a service (SCaaS) allows you to use supply chain partners for some or all of your supply chain processes, including manufacturing, warehousing, order fulfillment, shipping, and other functions. SCaaS is becoming popular because it can help reduce costs, scale production, diversify risks, and enable companies to more easily enter new international markets.

However, along with these advantages come concerns that need to be closely monitored. To that you need to closely monitor. Your partners may expose you to late deliveries, quality issues, reputational risk for their poor business practices, geopolitical instability, and more.

Predictive analytics can give you a more complete picture of your connected supply chain, including the likelihood of on-time delivery of quality goods and services, and how well they will comply with your organization's ESG policies. Predictive analytics can also help your organization identify potential risks associated with your partners, such as production problems, lack of capacity to scale for large orders, geopolitical concerns, poor labor relations, and financial instability. With these insights, you can have greater trust in your connected supply chain.

## Embrace Supply Chain Transformation

There are many reasons not to transform your supply chain—lack of IT budget, lack of vision, being okay with the status quo, or not having the expertise—but this approach will limit your business. Unless you transform with modern technology, you can expect employees and departments responsible for areas of the supply chain to become more siloed. Current problems and complexity, such as inefficiencies, manual processes, and being reactive instead of predictive, will grow and become increasingly costly.

If you don't prioritize an initiative to transform your supply chain, you can expect barriers to continue that limit collaboration, make production schedules more vulnerable to disruption, and limit your ability to forecast demand. These issues negatively impact customer experiences, visibility across the supply chain, building an integrated ecosystem, and agility.

By contrast, if you embrace transformation efforts, you can:

- Better predict customer needs
- Optimize digital processes for increased automation
- Plan the most optimal shipping and delivery methods
- Access real-time data to predict and adjust to issues
- Gain visibility across parts, materials, inventory, and manufacturing
- Measure sustainability to move toward low or zero emissions goals

## What Happens if Companies Don't Transform their Supply Chain?

Your supply chain is the backbone of your company. If you choose not to modernize this essential part of your business, your supply chain will become increasingly expensive and time-consuming. That's because you won't have a line of sight into bottlenecks, will face inefficiencies by having independent workflows that may be redundant, and need teams with specialized skill sets to manage complex processes.

The time to build the supply chain of the future is now. Not doing so will put you at an extreme competitive disadvantage. There's a good chance that your organization will be less productive, have higher costs, lower revenues, lower asset utilization, greater risk exposure, and less satisfied customers than your rivals who have transformed their supply chains.

The differences can be huge which will impact the ability of your business to perform well. For example, according to a survey of retail and manufacturing executives by Deloitte, supply chain leaders clearly outperform supply chain followers:



**79%** of organizations with superior supply chain capabilities achieve revenue growth that is significantly above average.



Only **8%** of organizations with lower-performing supply chains have above-average revenue growth.



**69%** of supply chain leaders have an Earnings Before Interest and Taxes (EBIT) margin that is significantly above average, compared to only 9% of supply chain followers.

These numbers show that the ability to embrace change and build a more adaptable supply chain is critical for any organization that wants to survive and thrive.

### Advantages of a Strategy Backed by Data

An effective roadmap supported by a modern data platform can benefit your organization by:

- Reducing costs
- Improving operations
- Forecasting demand
- Optimizing production
- Reducing waste
- Driving sustainability
- Maximizing inventory
- Improving resource allocation
- Mitigating delays
- Elevating customer experiences
- Leveraging IT investments

## What is Your Roadmap for Success?

Having a detailed roadmap is essential for both short-term and long-term success. The roadmap should offer strategies for supply chain processes, goals and objectives, and ways to measure outcomes. Supply and manufacturing needs, production schedules, customer demand, inventory capabilities, logistics, and sales goals should be included in the plan. This allows you to see how all interconnected parts of the supply chain interact and impact each other.

Like any strategy, your supply chain roadmap should be agile and regularly reviewed to ensure it aligns with current business priorities. As business needs change and supply chains evolve, you should update your roadmap.

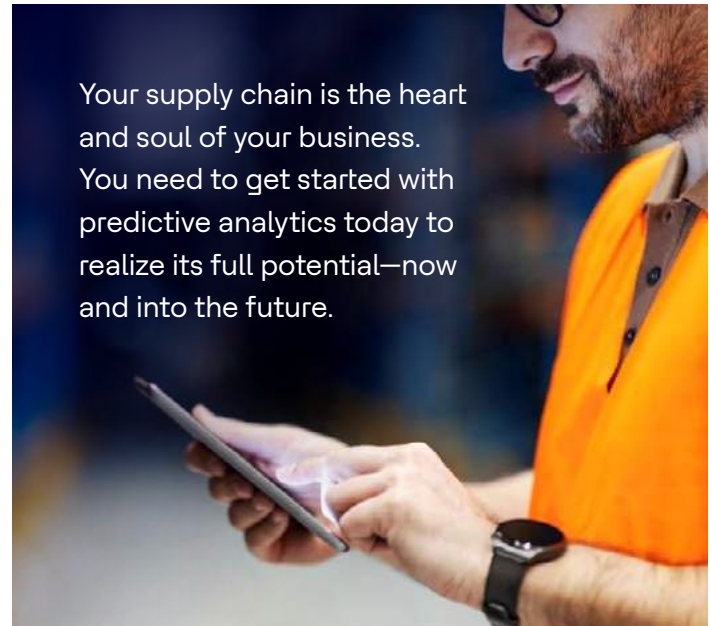
A well-designed roadmap allows you to better manage your supply chain end-to-end. It should be based on best practices, the unique needs of your organization, and the technologies required to ensure a resilient and sustainable supply chain. This roadmap can include the technologies you're using

### Supply Chain Modernization Starts with the Right Platform

Data and advanced analytics are not enough to build the supply chain of the future. Data must be easy to use, manage, and analyze, and give you complete confidence in the results.

Our Actian Data Platform delivers advanced capabilities, including predictive, prescriptive, and real-time analytics to modernize and automate your supply chain. The platform offers enterprise-proven data integration, data management, and data analytics services in a trusted and flexible platform. The Actian platform makes it easy to:

- Integrate and analyze massive amounts of supply chain data from disparate sources and in different formats
- Unify, transform, and orchestrate your data pipelines
- Foster collaboration between employees and suppliers while ensuring data security, privacy, and governance
- Improve speed and flexibility with a deploy-anywhere architecture
- Scale analytics and optimize price performance with a cloud-native solution
- Provide real-time access to data



today and outline the additional capabilities needed to reach specific goals. Tying technology into goals helps ensure buy-in from the CTO and others who can support investing in new IT platforms or systems.

The roadmap should highlight the future state of your supply chain, such as increased automation, more digital capabilities, and the ability to analyze growing data volumes from more sources. The Internet of Things (IoT), robotics, sensors, and other sources are producing more data than ever before. Your roadmap must include a strategy for integrating that data—so it doesn't end up in silos—and using that data to make the supply chain more predictive, responsive, and digital.

Achieving success requires easily building pipelines to new and emerging data sources, bringing data together on a single platform, and making the data easy to connect, manage, analyze, and share. You also need to have full confidence in the data to trust the insights and inform your decision-making. Once you have a solid roadmap in place, the next step is to share it with all stakeholders, so everyone understands established processes and goals, and can support the strategy.



## Future Proof Your Supply Chain with Predictive Analytics

The future of the supply chain is here—and it has predictive analytics that make the supply chain of the future more automated, resilient, agile, and sustainable. It can help address the complexities of supplier and product diversification, and working with SCaaS partners.

Transforming the supply chain will become the top responsibility for CSCOs. Failure will cause organizations to lose significant value as they forego market share to competitors that can deliver products faster, more responsibly, and at lower costs.

Your supply chain is the heart and soul of your business. You need to get started with predictive analytics today to realize its full potential—now and into the future. Your success relies on having a roadmap that sets the vision and direction for your end-to-end supply chain and how to support it with technologies such as a modern cloud data platform and predictive analytics.

## About Actian

Actian makes data easy. We deliver cloud, hybrid and on-premises data solutions that simplify how people connect, manage, and analyze data. We transform business by enabling customers to make confident, data-driven decisions that accelerate their organization's growth. Our data platform integrates seamlessly, performs reliably, and delivers at industry-leading speeds. Learn more about Actian, a division of HCLSoftware: [www.actian.com](http://www.actian.com).

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