

# Five Emerging Technologies That Are Shaping the Future of Supply Chain Management

Technology has always been a major driving force behind changes in the supply chain management landscape. Enterprise resource planning (ERP) systems, for example, have transformed the way businesses manage their inventory, warehouse operations, and shipping logistics.

However, many of these systems are not being used to their full potential. Given the recent disruption to global supply chains, the needs of companies are more varied than the standard offering.

Fortunately, a new wave of technology is emerging. Offering advanced flexibility and ease of calibration, these tools and platforms have the potential to provide the comprehensive supply chain management solutions that businesses need to thrive in the current environment—and beyond.

As supply chain leaders begin to adopt them at rapid speed, jumping on board with this digital transformation now could give your business a major competitive advantage. To help you get started, here are five cutting-edge technologies that are currently shaping the future of supply chain management.

## 1. Centralized Tracking at a Glance

One of the primary benefits of deploying a contemporary management system is the ability to get a complete overview of your inventory levels, shipments, and warehouse operations. This is essential for making informed decisions about where to allocate your resources and how to optimize your processes.

In the past, companies had to rely on a patchwork of disparate tracking systems. This made it difficult—if not impossible—to get an accurate, real-time view of what was happening across the supply chain.

Now, a new generation of tracking tools offers centralized visibility into all aspects of the supply chain. This includes inventory levels, in-transit shipments, and warehouse data. By integrating with existing enterprise systems, these solutions provide a single source of truth—enabling more informed decision-making and helping to avoid potential disruptions further down the line.

## 2. Advanced Analytics

Data is the lifeblood of any supply chain operation. To make informed decisions, you need to be able to access the right data—and have the ability to make sense of it.

However, most supply chain management solutions on the market today fall short when it comes to analytics. They provide access to data, but it's often in the form of raw, unstructured data sets. This makes it difficult to identify patterns, trends, and relationships.

Fortunately, there's a new breed of analytics tools that are designed specifically for the supply chain. These solutions use artificial intelligence (AI) and machine learning (ML) to make sense of large data sets—identifying patterns that would be difficult for humans to spot. This helps businesses to make better-informed decisions about where to allocate their resources and how to optimize their processes.

What's more, these digital supply chain tools are constantly getting smarter. As they ingest more data, they become more accurate at identifying patterns and spotting early warning signs of potential supply chain risks. This enables businesses to take proactive action to avoid problems before they arise.

## 3. Predictive Modeling

Preventative maintenance is a key part of any supply chain operation. By regularly servicing and repairing equipment, you can avoid unexpected downtime and disruptions further down the line.

Most companies manage their maintenance schedules manually—typically using spreadsheets or other outdated supply chain planning systems. This approach is time-consuming and prone to errors. It's also difficult to scale, as businesses expand and their operations become more complex.

Predictive modeling is a new approach that uses AI and ML to automatically detect potential problems before they occur. By analyzing data from sensors, these solutions can identify patterns that indicate when equipment is likely to fail. As a result, businesses can schedule maintenance at a time that is convenient for them, avoiding disruptions and ensuring that their operations run smoothly.

## 4. Real-Time Tracking

In today's fast-paced world, businesses need to be able to track their shipments in real-time. This is essential for ensuring that products are delivered on time and in good condition.

Tracking shipments used to be a manual process—often involving phone calls and email exchanges. This was time-consuming and didn't provide live visibility into the entire journey. As a result, it was difficult to spot potential delays and take action to avoid them.

Up-and-coming technology now offers real-time tracking of shipments throughout the supply chain. This includes GPS tracking of vehicles, as well as RFID tags on individual products. This data is fed into a central dashboard, giving businesses a live view of where their products are and whether they are on schedule.

## 5. Modular Tools

There are two primary types of supply chain software companies. First is the out-of-the-box type that sells you a product off the shelf. What you see is what you get.

The other type is the custom solution provider. These companies listen to your specific needs and then build a solution from the ground up, incorporating only the features and functionality you require. While this is great, it typically takes more time and money to implement.

Ideally, you should look for a supply chain management system that offers the best of both worlds: a robust platform that can be easily customized to meet your specific needs. It should have a dynamic offering of tools in place that you can quickly deploy on an as-needed basis. This way, you are getting something that fits around your operation without having the large price tag of custom software.

\_\_\_\_\_ offers that middle-ground. After deploying the pre-built tools that best suit your needs, we can make adjustments with ease and provide top-tier support throughout our relationship.

## How to Decide Which Supply Chain Technologies to Incorporate

When it comes to the latest and greatest technology, it can be tempting to want to jump on the bandwagon and try out every new tool that comes along. However, this is not always the best approach.

Before investing in any new supply chain execution and management technology, it's important to first evaluate the cost and contract terms. You should also consider whether the solution is compatible with your existing systems and whether you have the internal resources to support it.

In addition to these factors, consider the following questions:

- Will you be able to get full use out of this?
- How long would it take to implement?
- Can the solution scale with your needs?

- Will you still get adequate support after implementation?

Another significant consideration is whether it makes sense for you to purchase an all-encompassing solution or to deploy only the tools or products that address your specific needs. Purchasing and deploying multiple technologies is more attainable and stable than ever, and a considerable number of companies are moving in this direction.

At \_\_\_\_\_, we work closely with our clients to help them determine which tools and products make the most sense for their business. We offer a comprehensive suite of solutions that can be quickly deployed and easily customized to meet your business's specific needs. If you're ready to learn more about how \_\_\_\_\_ can help you take your supply chain management to the next level, contact us today to request a demo.