

DIGITALIZATION:
CREATING TECHNOLOGY
DRIVEN SUPPLY CHAINS

Companies are speeding up their digitalization efforts and investing in new technologies to keep up with changing customer behaviors and improve the customer experience. In fact, 42% of organizations say the pandemic has fast-tracked their digitization plans. However, because there is no one-size fits all strategy, the digital transformation can be cumbersome.

This report will uncover why it is time to transform your supply chain, what technologies companies should explore, the benefits of combining technology with your workforce, and how to harness data to turn it into operational intelligence/predictive analytics.

The Future of Supply Chains

When speaking about the future of supply chains and enhancing the customer experience, “digitalization” leads the conversation. Industry leaders know that an optimized customer experience is crucial to growth and that a digital transformation of the supply chain is the key to achieving that goal. A digitalized operation promotes efficiency and accuracy and is a tool for creating a dynamic experience that includes visibility across the supply chain journey.

With all eyes on supply chains as the world recovers from the pandemic, and the industry battles myriad disruptions, executives view digitalization as the key to shaping business opportunity in the decade ahead. However, the number of companies taking on digital strategies remains low. Just 24% of supply chains have some type of digitalization, according to the report *The Journey to Becoming Data-Driven*. And, most companies are still at an early stage in their transformation efforts.

The digital transformation is powered by technologies such as platforms that integrate with warehouse and transportation management systems, labor management tools, autonomous robots, augmented reality, sensors, and drones.

These technologies connect the supply chain ecosystem and improve network collaboration, visibility, and management. Information is shared end-to-end and in real-time for everyone in the supply chain journey to see—manufacturers, suppliers, carriers, drivers, warehouse workers, store managers, and consumers. When executed correctly, a digitalized operation provides key benefits in engineering and a resilient supply chain that can withstand the challenges the industry is experiencing today. This includes improving productivity and efficiency, increasing accuracy, reducing cycle times, maximizing the workforce, and providing 100% visibility.



Transforming Your Operation

Technology isn't new to the supply chain. Companies have long used computers and information technologies to improve their supply chains. But, it is much more than just scanning documents and inputting them into online systems. Digitalization, today, requires access to real-time data across all stages of the supply chain. Companies then need to use that data as business intelligence to build efficiencies through predictive analytics or to locate problems and pivot their operations to avoid future issues.

As with any major change, the digital transformation process comes with challenges. Many companies are still battling execution on disparate systems that don't talk to each other.

Companies also don't know where to start in the transformation or don't have the core knowledge to implement technology. Companies also skip getting their employees on board with the changes—an essential component of the digital transformation.

To be successful, a company needs to spend the time up front to know what it needs to meet its goals and have the people to execute it. No two supply chains are the same, so there is no one-size-fits-all strategy. When looking at how and where to implement digitalization, follow these five key principals: automate where it makes sense, remain nimble, scale instantaneously, get 100% visibility, and provide a customer-centric experience.

What Technologies to Implement

Companies are exploring and implementing many technologies across the industry, including automation technologies such as robotics, augmented reality (AR), artificial intelligence (AI), and analytics. Companies are also implementing cognitive technologies, which are all creating an environment capable of more informed decision-making.

Robotics and automation devices like autonomous pickers, tuggers, transporters, and sorters provide a safe, efficient, and reliable solution to move goods in a warehouse, while improving productivity, visibility, and customer service levels. Employees spend about 30% of their shift traveling inside the warehouse. Autonomous vehicles reduce travel time and, through machine learning, improve inventory-pick accuracy. By using autonomous vehicles, employees have more time to complete other, more complex tasks.

Wearable and mobile technology (AR & AI) gives managers and employees the capability to exchange data between devices and the network. These devices—including smart phones, sensors, scanners, tablets, glasses, and head-mounted systems—give employees immediate access to technology and information wherever they are in the warehouse.

These devices also connect to inventory management and order technology, providing complete visibility to everyone in the supply chain.

Visibility platforms that can connect everyone in the supply chain from end-to-end are essential to getting products to customers on-time and providing data to engineer more efficient processes. This includes that ability to share data with all parties and harness data that can be turned into predictive analytics. Investments in new technology for labor management inside warehouses are critical. This technology provides performance metrics visibility, labor management, and data automation within a warehouse, enabling stakeholders to build labor strategies that improve efficiency.

Companies must be aware that the digital transformation will only yield limited results unless coupled with expert operators and data scientists. Logistics professionals ensure the technology is optimized and harness the data to make it operational.

Making the Transformation

Digital supply chains are smarter, faster, more agile, and display resilience in the face of adversity. The technology and innovation that makes up a digital supply chain provides transparency from end-to-end, pulls key data and analytics, and allows everyone to collaborate in real time. But barriers to implementation are still present. That's why more companies are turning to third-party logistics providers.

At Ryder, we keep our finger on the pulse of technology and innovation to keep customers ahead of the game. We are creating digital supply chains every day. And, we are using our operators and data scientists to harness the data that is provided through this technology and turn it into business intelligence—actionable analytics—used to continuously improve operations. This allows us to provide companies with visibility to manage exceptions as goods move through the supply chain. And, it is how we connect multiple people to collaborate in real time to solve in minutes what took days or weeks to fix.

Over the last few years, Ryder has deployed more than \$200 million in automation across all industries. This includes implementing autonomous guided vehicles and forklifts in consumer packaged goods (CPG) customer locations. Autonomous mobile robots are deployed across our e-commerce networks, as well as top retailers. Healthcare, industrial, and CPG companies are using automated storage and retrieval systems. And, in 2022, we will deploy AI vision picking robots.

We also launched RyderShare™ our ultimate visibility platform operated by our logistics professionals that provides real-time visibility of goods moving across the supply chain from end-to-end. This logistics platform enables the sharing of data with all stakeholders to make decisions and take actions on exceptions on products on trucks and in the warehouse. RyderShare™ enables companies to achieve cost savings by reducing redundancies, driving efficiencies, and creating a more predictive supply chain.

Ryder OpsBox™, our labor management tool, provides a centralized data and analytics platform for distribution and labor management decision-making and optimization. The platform provides floor visuals for employees, daily metrics, workforce planning, and customer visibility dashboards, which leads to increases in labor productivity.

Through these investments in technology and expertise in operating them, we ensure companies are at the forefront of innovation and can succeed in their digital transformation in this changing environment.



Discover how Ryder Supply Chain Solutions can make your operation *Ever better™*.



About Ryder

Ryder System, Inc. is a leading logistics and transportation company. It provides supply chain, dedicated transportation, and commercial fleet management solutions, including full service leasing, rental, and maintenance, used vehicle sales, professional drivers, transportation services, freight brokerage, warehousing and distribution, e-commerce fulfillment, and last mile delivery services, to some of the world's most-recognized brands. Ryder manages more than 235,000 commercial vehicles and operates more than 300 warehouses, encompassing approximately 63 million square feet. Ryder is regularly recognized for its industry leading practices in third-party logistics, technology-driven innovations, commercial vehicle maintenance, environmentally friendly solutions, corporate social responsibility, world-class safety and security programs, military veteran recruitment initiatives, and the hiring of a diverse workforce.