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Grayway

Smart Operations and Sharp Consumer Focus Will Drive Supply Chains



Supply Chains
Strive to Be
Secure, Smart,
and Sustainable

Making Supply
Chains More
Consumer-Centric





Welcome.

Stephen Gray
President and CEO
GRAY, INC.



Supply chains were greatly tested last year by the COVID-19 pandemic—especially the ability to respond to constantly changing economic conditions. Many companies turned to Industry 4.0 technologies to become more efficient, agile, and competitive.

A surprising upside to the pandemic is the rapid growth in the cold storage market, which will grow at an annual rate of about 13% for the next seven years. A key driver is that many consumers continue to shop online for food and groceries. This increase in demand, however, has revealed a shortage of cold storage facilities in rural areas, which will likely be an area of growth in the near future.

As supply chains digitize their processes, they create more entry points for hackers—especially ransomware. With supply chains settling in for 2021, now would be a good time to strengthen security measures.

Finally, 2020 showed that meeting customer preferences is still important for business. Customers are extremely focused on speed of delivery and ease of fulfillment, so “last-mile” delivery is increasingly important. So is an alignment of philosophy—for example, forward-thinking supply chains continue their efforts toward sustainability because, not only is it the right thing to do, but it also builds brand loyalty.



Gray practices methods which protect our environment.

SUPPLY CHAIN SOLUTIONS

Key Supply Chain Trends Include a Sharp Focus on the Customer

What's on the Inside. →



Supply Chains Strive to Be Secure, Smart, and Sustainable

A global pandemic tests supply chains like nothing else. For many companies, COVID-19 exposed glaring gaps and weaknesses in their supply chains and management systems, especially regarding agility. Most manufacturers and supply chain companies would agree that they are aiming to continue to implement Industry 4.0 technologies that improve transparency and efficiency throughout their supply chain processes and operations, such as automation, robotics, machine learning, Internet of Things (IoT), and blockchain.

As much as these technologies deserve full attention and significant investment, four other supply chain trends are emerging that will have significant impacts on the supply chain—cold storage capacity, cybersecurity, sustainability, and artificial intelligence (AI).

Cold Storage Growth

2021 has seen increased global demand for refrigerated foods, beverages, vaccines, and other pharmaceuticals. The [global cold storage market size](#), valued at USD \$107 billion in 2020, is expected to grow at a compound annual growth rate of 13.5% through 2028.

This demand is driven by several factors—the pandemic, supply chain disruptions, shelter-in-place orders, and the explosion of e-commerce for purchasing food. The lack of cold storage facilities in rural areas is of particular concern in delivering food supplies and reflects the need for local, smaller cold storage facilities in these areas.

To keep pace, distributors need to expand their number of trucks, shipping containers, and climate-controlled distribution facilities. The lack of infrastructure, especially in rural areas, required to sustain the cold chain, will cause shipping challenges. “However, single-envelope construction technology, a recent development in composite panel construction, can help reduce overall construction time and costs of building these facilities, which have a smaller footprint and lesser height without compromising the internal volume,” [states Grand View Research](#).

Cybersecurity

Like many other industries, distribution/logistics is also susceptible to cyberattacks due to the interconnected nature of their supply chains. IoT, blockchain, and cloud-based computing services have led a huge surge in data-driven processes that drive improvements in production and efficiency. The downside is that these IoT-based technologies have created more vulnerability within systems and tools, and created more points of entry for hackers.

According to BlueVoyant, a cybersecurity services company, [ransomware](#) is the number one cyber threat to the supply chain today. The company's [Supply Chain Disruptions and Cybersecurity in Logistics](#) report indicates the number of ransomware attacks on shipping and logistics firms tripled from 2019 to 2020. Almost all the cyber attackers gained entrance through open remote desktop ports.

2020 Global Cold Storage Market Share, by Application (%)



- Fruits & Vegetables
- Dairy
- Fish, Meat, & Seafood
- Processed Food
- Pharmaceuticals

Despite these risks, nearly 90% of the respondents reported vulnerabilities such as open remote desktop or administration ports and insufficient email security, the primary routes of attack for ransomware.

To defend against ransomware, Danny Swanger, IT network administrator for Stone Technologies which recently announced a merger agreement with Gray Solutions, a Gray company, recommends encrypting all sensitive customer information, device drives, and data while using multi-factor authentication whenever possible. “I also highly recommend ongoing training and testing using KnowBe4 security platform for all users and following best practices at all times,” says Swanger.

“Companies with well-considered supply-chain risk management processes will be better placed to identify the impact of disruptive events on their supply-chain and product offering, providing them with an opportunity to assess how to best respond in tough circumstances.”

Anne Petterd
Technology, Communications, and Commercial Partner
BAKER MCKENZIE

Sustainability

Despite the more pressing concerns of repairing and upgrading supply chains during the pandemic and deploying new technologies, supply chain companies are serious about sustainability. For example, [Capgemini Research Institute revealed](#) that more than three-quarters of the companies it recently interviewed are committed to improving supply chain sustainability over the coming years.

Not only does sustainability support the environment, it also reduces operational costs and material waste, increases customer and employee loyalty, boosts growth, and builds brand image. In fact, the Harvard Business Review reports that companies that are focused on sustainability grow [almost six times](#) faster than those who do not.

Electricity and transportation are big contributors to greenhouse gas emissions. Many logistics companies are transforming their facilities into eco-friendly warehouses, [deploying advanced energy management systems](#) and electric and solar-powered vehicles to lower their overall carbon footprint by managing their usage of electricity, heat, water, and gas.

Artificial Intelligence and Machine Learning

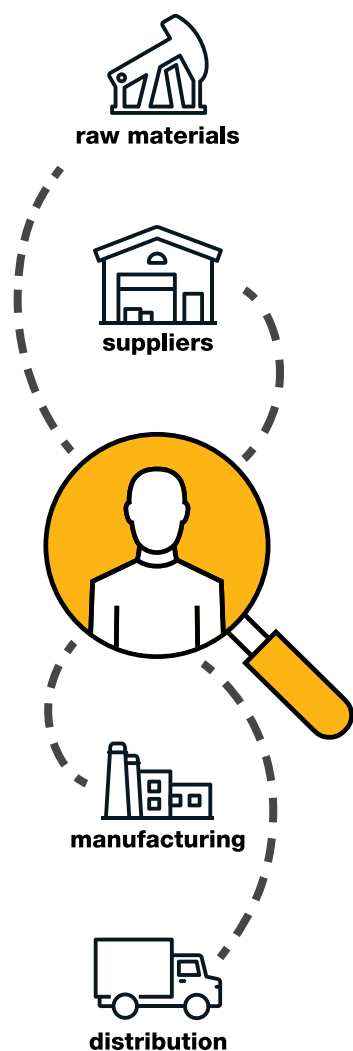
Perhaps the most impactful supply chain improvement in coming years will be artificial intelligence (AI) and machine learning, especially for predictive and prescriptive analytics. Embedded AI systems that provide real-time data streams, interactive data visualization, and advanced analytics will help detect operational weaknesses within a company's supply chain.

A [recent report](#) showed that “61% of executives reported reduced costs, and 53% stated increased revenues after implementing AI into their supply chains.” Further, [Deloitte reported](#) that about one-third of supply chain leaders utilize robotic technology for warehouse automation.

As AI and machine learning continue to prove themselves in the supply chain world, a growing number of companies will delegate more tasks and higher-level decision making “to intelligent applications, physical robots, and software service assistants,” [predicts Gartner](#), a research and advisory firm.

A healthy recovery requires healthy supply chains. Some companies started investing in automation, AI, and other Industry 4.0 technologies before the pandemic and are innovative leaders; others are just starting now. “Enhanced supply-chain management and adoption of digitalization have never been more important,” [says Anne Petterd](#), technology, communications, and commercial partner with Baker McKenzie. “Companies with well-considered supply-chain risk management processes will be better placed to identify the impact of disruptive events on their supply-chain and product offering, providing them with an opportunity to assess how to best respond in tough circumstances.”

Making Supply Chains More Consumer-Centric



Previously, supply chain partners focused on getting products from Point A to Point B and didn't worry much about consumer opinions. Today's priorities are different and to stay competitive, supply chains must operate in innovative ways to provide a high-value, consumer-centric experience that meets the evolving demands of the end user.

Direct-to-consumer (DTC) delivery and e-commerce were already on the rise before COVID-19 struck, which sent sales soaring in the pandemic when online grocery shopping became a necessity. Grocery e-commerce continues to be one of [the fastest-growing categories](#) in online sales because consumers have now experienced the convenience of shopping from home. [According to the Food Industry Association](#), food retailers have invested \$1.5 billion in technology and developing online-delivery systems. Big companies with deep resources such as [Kraft Heinz](#) and [Ben & Jerry's](#) have shortened their supply chains to put the product directly into the customers' hands with DTC.

Speed Is a Necessity

With the surge in e-commerce, and growing expectations by consumers for a seamless ordering and delivery experience, it is paramount that supply chains make their consumer interactions easier and faster.

Companies need to understand the different service requirements for various customer segments and invest in the infrastructure and technology that will meet their fulfillment needs—especially the number, size, and location of distribution facilities. Creating and maintaining a highly complex fulfillment infrastructure is expensive and time-consuming—even for big distribution companies. Carriers are now analyzing the true cost of goods and evaluating the impacts of only having large centralized facilities with [spread-out supply chain nodes](#),



Given the ease of 3rd parties to scale up and down with demand, contractual drivers handled a large chunk of the order delivery influx during the last few months of 2020 and early 2021.

and limited options for smaller, more local facilities, especially in rural areas.

One solution is for different companies to share existing warehousing and transportation capabilities. In addition to reducing costs and speeding up delivery, this type of “asset-light” approach to fulfillment “provides greater flexibility for a company to scale up or down quickly in conjunction with market conditions and customer demand and drives synergies of infrastructure utilization that can have an improved environmental impact,” [states Pierre Mawet](#), managing director of supply chain and operations for Accenture.

“Last mile” delivery services also make a big difference in the consumer shopping experience. Fulfillment timetables are always in flux and consumers want faster delivery. Some companies ship products directly to stores for customers to pick up at the curb or a customer service desk. “Other retail companies are looking to third parties like Uber drivers, start-ups, or omnichannel providers to handle their order delivery services,” [states Radial](#), which specializes in omnichannel commerce. Last-mile tracking technology is also increasingly popular for letting customers know when their packages will arrive.

“In other words, an intelligent, customer-centric supply chain that transforms a company’s management, distribution, and transportation is greatly needed, especially with COVID-19 rewriting the rules for how people shop today—a new reality that’s putting massive strain on existing supply chains.”

Pierre Mawet
Managing Director, Supply Chain and Operations
ACCENTURE

Data-Driven Results

Customer-centric distribution will be increasingly driven by data-rich processes, such as IoT technologies including automation, robotics, cloud-based warehouse management systems, ordering and tracking technologies, and big data analytics. These tools and systems are being used to transform logistics/distribution into a lean, automated, responsive, and responsible transportation and delivery system that will continue to add value to the customer experience.

Ultimately, supply chains must make the effort to “deeply understand customers, anticipate and shape their short- and long-term needs, and engage each customer or customer segment with different service levels,” says Mawet. “In other words, an intelligent, customer-centric supply chain that transforms a company’s management, distribution, and transportation is greatly needed, especially with COVID-19 rewriting the rules for how people shop today—a new reality that’s putting massive strain on existing supply chains.”

GRAY — WE’RE BUILDING



Merchants Distributors, LLC

HICKORY, NC

Merchants Distributors, LLC (MDI), a wholesale grocery distributor founded in Hickory, NC in 1931, is partnering with Gray to design and build a 200,000 s.f. expansion to its existing distribution facility.

MDI and its parent company, Alex Lee, Inc., were founded in Hickory and maintain its current headquarters there. Continuing to improve its services and operations in its hometown, MDI selected Gray for the dry storage expansion consisting of state-of-the-art AS/RS. This new portion of the facility will include a 2-story multipurpose space with offices, training spaces, and a control room.

MDI provides food and non-food grocery items to more than 600 retail stores with food and on-food items in 12 states across the United States and exports to over 20 countries. The company also provides additional retail support to its customers, including retail automation services, advertising and placement, and retail price hosting, among other services.





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