



THE BEST STRATEGIES FOR E-FULFILLMENT SUCCESS

E-commerce fulfillment gets a lift from inventory management, variability strategies, and innovative technology.

By June Allan Corrigan



Consumers who rarely, if ever, ordered anything online have become an anomaly thanks to the pandemic. Effective e-commerce fulfillment has never been more important as the habits shoppers formed during long months of being sequestered have stuck with them.

The difficulty of obtaining inventory may have eased but inflation and rising costs continue to complicate matters. Inventory management and variability strategies can help stem profit bleeding as can use of innovative technology.

AUTOMATION ADVANTAGE

Having entered the e-commerce space in the 1990s, Gap Inc. was an early adopter. The clothing and accessories

retailer with a portfolio of global brands that includes Gap, Banana Republic, Old Navy, and Athleta saw e-commerce business almost double throughout the pandemic.

In summer 2022, 35 to 40% of the company's weekly sales were via e-commerce. "E-com business has held its own, even after our brick-and-mortar stores have re-opened," says Kevin Kuntz, the company's head of logistics fulfillment and procurement operations.

Gap Inc. wisely began investing in automation back in 2012, initially concentrating on automated storage and retrieval. It first acquired TGW cranes, which predominantly handle inbound putaway.



Gap Inc.'s fulfillment center in Fresno, California, is one of 11 across the country that all use the same technology and material handling systems.

The beauty of the system is that manual touches have been reduced to just one. A worker unloads vendor cartons from a trailer, they pass through a variety of quality check scans, and the cartons are then sorted and stored in a mini-load system based on high-performance cranes that are 36 feet tall.

At Gap Inc., the sorting process includes sending cartons to cranes designated at either “online” or “retail” depending on the kinds of orders ultimately fulfilled.

In late summer 2022 Gap Inc. opened a new 850,000-square-foot distribution center—or what it prefers to call a Customer Experience Center—in Longview, Texas. “We installed 24 aisles of TGW cranes at Longview so we have the ability to store roughly 350,000 cases,” says Kuntz.

With the Longview campus up and running, the company expects to be able to process more than 4 million units daily across its network.

Gap Inc. has also heavily invested in Bombay Sorters, which they use to start assembling final orders for customers. There are 11 Gap Inc. fulfillment centers in North America—including a recently expanded location in Fishkill, New York—and they all use the same technology.

“Our facilities all have identical material handling systems,” Kuntz says.

“It’s nice having a single playbook that everybody operates from. You get to share a lot of best practices that way.”

Technologies deployed at scale across Gap Inc.’s network also include Kindred SORT Robots, Exotec automated returns unit-handling, and auto baggers. Having the foresight to lay in automation early on has helped the company fulfill e-commerce orders cost-effectively.

“To have a level of capacity that’s not directly tied to an abundance of labor is

an advantage for us,” says Kuntz. “Our investments really paid off during the pandemic and they continue to help us through the peak seasons.”

Gap Inc. might double its number of employees during peak holiday seasons but they never have to triple their numbers.

“It helps take the strain off our leaders and our frontline employees and provides a great customer experience as well,” Kuntz says. “We’re constantly, at worst case, covering our cost increases to keep our costs flat, which in today’s environment is a pretty impressive feat.”

INVENTORY INSIGHT

Effective e-fulfillment relies on precise purchasing to keep costs down. However, the buying and planning side of a business can’t always predict when an item will capture the public’s imagination, causing supplies to run short.

Flexibility is the answer and having an inventory management system in place that can scale sudden changes is invaluable. Warehouse management systems such as those offered by consulting firm Alpine Supply Chain Solutions are equipped to handle unexpected variables.



A newly built 850,000-square-foot fulfillment center in Longview, Texas, enables Gap Inc. to store 350,000 cases and process up to 1 million units per day.

For example, Alpine counts pet food distributors among its clients and should a 22-pound bag of a certain variety of dog food runs out, their warehouse management system can pivot to sending out three 8-pound bags of the same variety.

Incentive purchases can also throw a kink in operations. “You can service some customers by doing a bulk pull but sometimes there might be an extra layer of difficulty,” says David Kressin, managing director at Alpine. “A client might offer a purchase incentive—like a grab bag or promotions gift that must be combined with the bulk pull.”

Alpine has encountered that scenario with its client MONAT Global Corp., a multi-level marketing company that sells haircare, skincare, and wellness products. Founded in 2014, MONAT operates primarily in the e-commerce space and its KPI (key performance indicator) is to get their products in the hands of customers in four days or less after an order is placed.

“We contracted with Alpine because they offered the best solution for our growth strategy and helped us increase efficiency,” says Alfredo Mantilla, director of global warehouse operations for MONAT. “Their technology helped

us get away from all the manual steps we were doing.

“We’ve become a lot more system driven,” he adds. “Alpine increased our profitability in a short time to get us to the billion-dollar mark.”

Every order at MONAT gets cartonized. Once the size of a carton is determined, the workforce might be divvied up among 10 pick lanes. Some lanes might mirror activity going on in other lanes but it’s a way to smooth and balance things to avoid congestion and the company can get the volumes out as quickly as possible.

“The fewer touches the better

SUBSCRIPTION PRESCRIPTION

While demand is not quite as high as it was during the height of the pandemic, monthly—and in some cases, weekly—subscription boxes continue to be popular. From curated selections of beauty products to food plans to hobby-related boxes, consumers keep signing up for and eagerly anticipating their personalized shipments.

With inflation driving up food and gas prices, subscription meal delivery services have been facing particular problems lately. “It’s a massive challenge to keep our shipping costs under control,” says Mike Wargocki, vice president of manufacturing at Sunbasket, a San Francisco-based company that ships members fresh organic and sustainable ingredients every week, allowing them to cook their own meals.

In the wake of big carriers raising prices to cover their costs, Sunbasket increasingly relies on smaller regional carriers. “Regional carriers have higher delivery percentages and they have more capacity,” says Wargocki.

Sunbasket has a large manufacturing and fulfillment site on each coast. “We have to produce dozens of different ingredients that change each week,” Wargocki explains. The company’s California facility fulfills orders everywhere from

Washington state through Texas while its New Jersey location handles the rest of the country.

Menus reflect seasonality. Local crops and what is available at certain times of year near Sunbasket’s California facility, in particular, help reduce the cost of inventory. The company specializes in organic produce and since the majority of it is grown in California or in Arizona during the winter, East Coast subscribers experience higher pricing.

Food cost is proportionally higher because of the logistics of getting product to the East Coast. Since those customers are later in the supply chain, maintaining optimum temperatures throughout the product’s journey is critical to providing a good customer experience.

“It’s all about the security of the load, making sure no one is tampering with a food delivery,” says Wargocki. Sunbasket puts temperature trackers on the trucks to ensure ideal temps are constantly being maintained and then checks each load as it arrives to ensure there has been no abuse of these processes.

“Getting products delivered has become a lifestyle for consumers now,” Wargocki says. “The whole market is a much bigger, more complex space than it was before the pandemic.”



throughout your warehouse,” Kressin advises. “And the quality of the touches that happen is also important.”

Alpine’s Pick-to-Light and Pick-and-Pass inventory management strategies help streamline operations. They allow for flexibility in fulfilling orders that might change or add something suddenly—like a special promotion gift. The strategies ensure product gets out the door on average as well as high situation days.

MIDDLE GROUND

Once a product’s journey through a warehouse is complete, the next phase of the process begins: shipping. Effective and cost-saving e-fulfillment hinges on getting the mode of transport right.

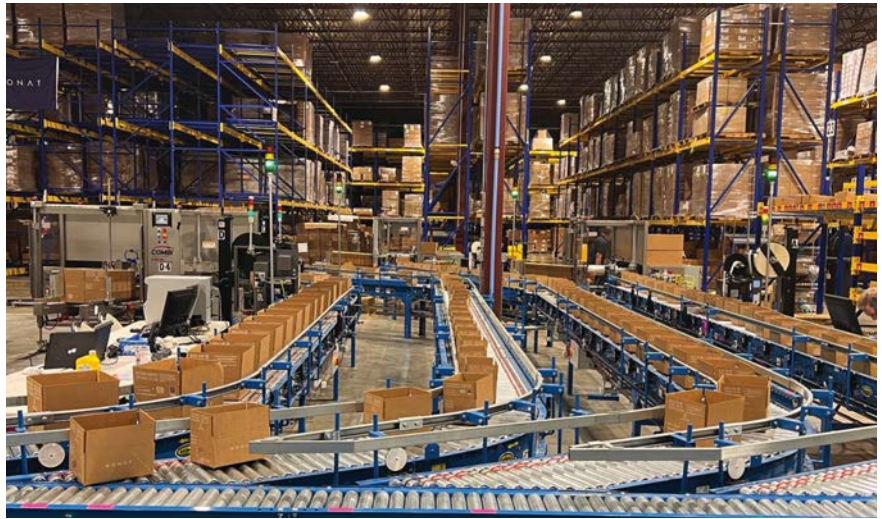
An eye must also be cast on the nature of the product. Is it perishable or non-perishable? Is the product a cheesecake or a pair of shoes? The consumer wants both as quickly as possible and although there is some leeway with shoes, there’s not as much with a cheesecake.

What happens during the middle mile of a product’s journey is crucial. A non-perishable item can be combined with other shipments and incorporate slower transit times to keep costs down. A perishable item doesn’t have that flexibility.

“When a company ships a perishable item, it becomes more of a negotiation with its existing providers than operational changes the company needs to do,” says Daniel Sokolovsky, CEO and founder of WARP, a company that specializes in the middle mile. WARP handles direct store distribution, direct carrier injections, and warehouse-to-warehouse transfers.

Refrigerated trucks are essential for perishable items throughout the middle mile despite their higher cost. However, some cost savings can be achieved by relying on ice packs, or even double ice packs, during the last mile.

Sometimes the cost of keeping an item fresh can actually be higher than the cost of the product itself. It’s a hazard of the food delivery business in particular, subscription boxes being a case in point. The increased cost must



Boxes wait to be filled at the start of the order process at MONAT Global's warehouse. The wellness product company partnered with Alpine Supply Chain Solutions to implement inventory management systems that help streamline fulfillment operations.

be folded into the price of a product up front.

The moment that shippers of non-perishable products acquire inventory is not directly tied to the moment that they send the inventory. Not so with perishable items because to have a shipment arrive spoiled is a no-win situation.

“Perishable presents its own unique set of challenges,” says Sokolovsky. “You have to properly plan for the inbound portion of that inventory. If you order too much, you could end up throwing it away. If you order too little, it could mean you can’t satisfy all your customers.”

FINAL STRETCH

“Perishability is a ticking time bomb,” says Adam Bryant, CEO of AxleHire, a tech-enabled last-mile urban delivery provider that handles next-day and same-day shipments. The company has a number of subscription box services in its customer base and quite a few of them are in the meal kit space where orders are generally shipped out weekly.

Freshness aside—an aspect that is non-negotiable—the end consumer is also hyper-focused on their order being delivered on time as they’re trying to plan their meals for the week. “If their orders don’t arrive on Monday or whatever

day they planned on, that affects them directly,” says Bryant.

AxleHire partners with multiple shippers, aggregating and commingling their volume so they can all take advantage of each other’s density. Then it matches supply with demand, leveraging the gig economy from a driver’s perspective to get the packages delivered.

As a last-mile service provider, AxleHire features very short transit times. It has sortation facilities in each of the major metropolitan areas it serves.

“We offer flexibility and since we leverage the gig economy, we’re an asset-light model,” says Bryant. “We can quickly scale up and down, and price competitively and transparently due to that low asset fixed model.”

AxleHire uses end-to-end technology it built in-house—encompassing everything from order intake into its system, routing, and the warehouse management system it uses to orchestrate the sortation process, as well as the booking links it puts up for drivers, the in-app navigation of getting an order to the doorstep, proof of delivery, and sharing of dashboards.

“We have real-time tracking on everything that goes on so we can share that with clients and recipients,” Bryant says. “It’s fungible and can work with meal kit and e-commerce companies.” ■