



Reversing the U-Turn in Inventory Accuracy

The COVID-19 crisis has exposed flaws in grocery ordering practices and the supply chain. What lessons can we take from this? Insights from IHL Group offer some clues. Here's how you can leverage Itasca Magic™ to come back stronger.

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INVENTORY ACCURACY in grocery was getting a lot better. Really.

Then COVID-19 happened in March, and four months of grocery inventory pipeline evaporated in two weeks of panic shopping by Americans. Grocery sales volume rose 27% for the month, but out-of-stocks soared too, in categories that have become emblems for the crisis, like cleaning supplies and toilet paper.

Supermarket operators that had worked diligently over prior years to fine-tune inventory replenishment disciplines faced a troubling realization. Their store systems and practices were not designed to respond to sudden demand as high as 4x, even 6x normal. Neither were they equipped to cope with non-deliveries, partial deliveries, and long delays that crushed perpetual inventory metrics.

Some did get a little lucky in fulfilling demand in the early days. They were the few that had costly excess slack in the supply chain. This let them cover the initial crush, but replenishment worsened as their suppliers ran short on high-demand products.

Did we say inventory accuracy had been getting better?

Before the pandemic arrived, large retailers in North America, Western Europe, and some Asian countries had seen an average reduction of 17% in their costs of overstocks and out-of-stocks from 2017-2020. The improvements made had amounted to nearly \$158 billion worldwide over three years, according to an Itasca Retail co-sponsored report from IHL Group, "Disrupted Retail – How the Pandemic Exposed Retail's Hidden Inventory Distortion."

Inventory Distortion Improvement

2017-2020 (Prior to Pandemic)

A green arrow pointing upwards and to the right, positioned to the left of the text "\$158b".

\$158b

Source: IHL Group

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Said Greg Buzek, CEO of IHL Group and the study's principal author, "The improvements were attributable to reduced losses across retail as a result of better forecasting, the leveraging of AI, RFID, computer vision, and other tools."

The pandemic reversed this positive trajectory in inventory accuracy on a global scale. "Retailers have experienced an estimated \$570 billion in lost revenue that can be directly attributed to the surge and/or lockdowns of retailers and restaurants," Buzek said.

As the many headlines about pandemic panic shopping and product shortages would suggest, the damage was driven primarily by out-of-stocks, which IHL tallied at \$505 billion through June of this year [Fig. 1]. Of that tally, they characterized 15%, or \$76 billion, as "newly exposed," resulting from a much higher rate of in-store order fulfillment of digital orders.

Fig. 1. IHL reports the surge in online ordering exposed new OOS between February and June 2020

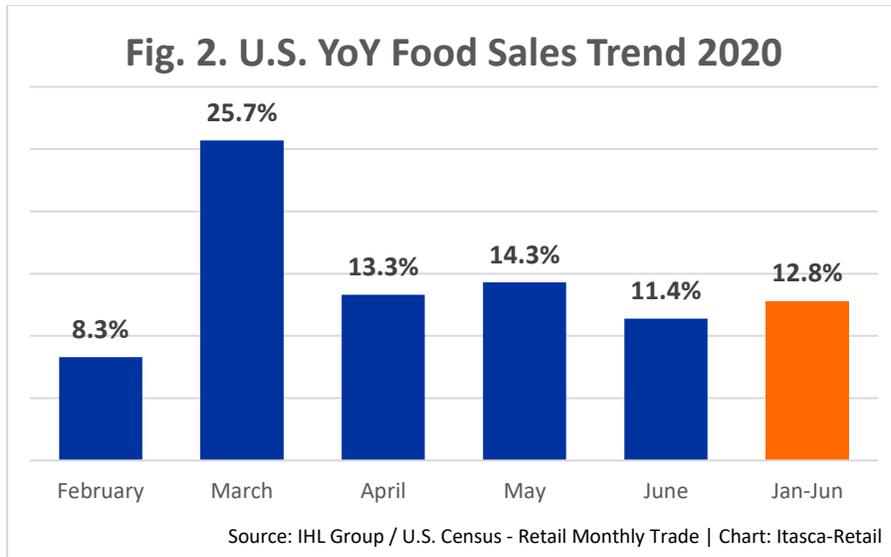


Source: IHL Group

Shifts in demand

That's quite a U-turn for retailers. Those new losses were largely driven by panic shopping and shortages at sellers of consumable products. In the U.S. grocery sector, this occurred despite an overall demand surge in food sales of nearly 13% year-over-year through June of this year [Fig. 2].

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Six months after the initial lockdowns, upstream product shortages and altered shopping patterns continue to bedevil grocery retailers, many of whom continue to grapple with spot outages of some product varieties.

Food retailers are faced with a phenomenon they may never have considered while implementing their inventory management systems: soaring sales volume with out-of-stocks they can't control, even with best available practices.

eCommerce puts OOS in a new spotlight

Much has been reported about how the pandemic response spurred a much faster increase in online grocery shopping. In reality, it added to a momentum that was already building.

Just weeks before the March lockdowns started in the U.S., Nielsen had revised its published forecast for online grocery shopping upward in its report, "The Omnishopper Imperative for Food Retailers," published by FMI in February 2020. "This new projection of \$143 billion by 2025 will represent about 18% of an expected overall \$800 billion in combined online and in-store spending for food and beverage at home by 2025," said the report authors.

That prediction seemed pretty bold – until the pandemic turned digital late-adopters into vigorous (even desperate) online shoppers over a matter of just a few weeks.

Said Buzek, "Grocery Click & Collect and local delivery surged 350-400% during the pandemic for retailers like Walmart, Target and Kroger. In the process it exposed things that were previously hidden when you were walking through the stores."

By "hidden," he meant the way shoppers make routine in-store substitution decisions while shopping that cannot be detected by retailers. This is no less true for "panic shopping." When a shopper is forced to switch from their preferred branded 2-ply bathroom tissue to a single-ply store brand, POS systems may not recognize this as unfulfilled demand. If a shopper selects a head of iceberg lettuce because their store is out of their preferred mix of salad greens, the reason is likely invisible too.

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Orders placed online are not subject to the same blind spot since every item viewed can be tracked in the digital system. Even if an item ordered for in-store fulfillment turns up OOS at the shelf, the substitution process (or non-delivery of the item) is digitally documented.

This means the shift in volume to digital grocery ordering is exposing more service issues due to online orders for delivery or Click & Collect.

No New Normal

There is some good news for supermarkets – IHL projects that food/grocery sales in North America will grow by 12.1% for the full year 2020, versus a previously forecast growth of 3.3%. A good part of that gain is coming at the expense of the hard-hit restaurant industry.

With overall sales and omnichannel food shopping up so much, why should grocers be concerned about their inventory practices? For starters, visible shelf voids indicate that some sub-categories remain in short supply half a year later. Several manufacturers have cut slower moving product varieties to focus production on higher-demand items, leaving holes in the planograms.

Meanwhile, expenses for store labor, in-store fulfillment and deliveries have risen, says IHL. “On average, pre-pandemic retailers were losing 5-8 points of margin if they had not optimized the labor and processes around click and collect or local delivery. Every substitution due to out-of-stock simply adds more labor expense to the transaction.”

Is there an orderly path “back to normal”? After six months of pandemic shopping, some altered shopping behaviors are beginning to stick, as many households reduce store visits out of an abundance of caution. Small fill-in trips, especially, are a thing of the past. With many restaurants closed, they are buying more food for preparation at home. Instead of managing home pantries with 2-3 trips a week to several food stores, many households are cutting back to one large stock-up trip every week or two, while filling in on non-perishable items using online ordering.

That implies that basket composition is different too. Households with sufficient means continue to buy stock-up quantities of staple items when they can find them. Even item preferences can change. Perishable items like salad greens or strawberries last only a few days in the fridge between shopping trips. Canned or frozen veggies or fruit can keep indefinitely.

After six months of disruption, shopping is not about to return “back to normal.” It’s going to take some effort and experience to get a handle on what’s ahead and make the accurate decisions needed.

Itasca Magic™ provides the ability to predict that reality and render accurate orders, with sophisticated AI algorithms designed to detect even unusual changes in demand, and respond instantly and automatically to keep shelves stocked.

So, if toilet paper spikes 35% during the previous two days, Itasca customers rest assured their next orders from the system will cover that demand. This happens with or without human intervention, by choice, at each retailer. In fact, we have observed automated orders being reviewed *less* (labor was busy with more pressing tasks), while order accuracy actually *improved*. This will prove even more beneficial to Itasca customers as they’ll be able to save even more labor than they have already experienced.

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Aim forward, not back

For supermarket operators, it is no small challenge to digest the informational changes generated by pandemic shopping demand and maintain a reliable inventory forecast. Persistent supply issues remain in some categories too, which can further distort the demand signal.

“At IHL we firmly believe the battle ground for the next decade is going to be the ability to apply AI and machine learning on store operational issues and store inventory issues,” Buzek said. He outlined five areas of practice that grocery retailers should master as they return toward something resembling equilibrium:

- **Keep clean data.** Maintain a maniacal focus on accurate inventory data and precise view of inventory.
- **Scan well.** Deploy precise POS scanning, in-store sensing, cameras, and back them with the analytics that reveal more about what the shopper sees and does.
- **Push decisions to the stores.** The debate over where to process data – in the cloud or using edge computing – is trending strongly to the stores.
- **Look outside too.** Tap into trusted data sources, such as sales trends from other geographies or retail channels, to help anticipate course-corrections ahead.
- **Trust your ordering system.** Existing inventory management technology has not failed us. It still does exactly what it was designed to do – track quantities and calculate orders using an empirical process. (If you don’t have a CGO system you can trust, get one here: <https://www.itasca-retail.com/>)

“Solutions depend on clean data that is trusted internally,” Buzek said. “When CGO systems said ‘buy 40X of an item’ during the COVID crisis, some of those orders were cancelled by humans and many sales were lost.”

Retailers who held back those orders found themselves with lengthy out-of-stocks on items ranging from tissues, to eggs, to canned beans, tuna and dried pasta. Itasca customers who trusted their ordering system were in many instances able to maintain better service levels and recover faster.

Low order fill rates can add to the damage. Retailers who have orders filled to a 50% rate naturally *double* their orders to get what they need. This intervention leads to over-stating the actual demand in the supply chain, with consequences

The IHL report cautions that future stock-up panics could set up a race to order first from the wholesalers. A best-of-breed ordering system can help put your stores at the head of the queue.

Said Buzek, “Retailers that fix their inventory distortion issues in the minds of their consumers will not only do better but race ahead of all other retailers that have not made the investments.”

Itasca Retail is already documenting the advantages enjoyed by grocery retailers who had Itasca Magic™ perpetual inventory and CGO in place when the pandemic first struck. While they were not immune to supply shortages, their orders were more accurate, more timely, and their recovery is progressing faster.

At all times, but especially in times of market crisis, supermarkets seek to balance conflicting objectives with minimal human intervention to drive optimal inventory. Itasca is uniquely qualified to deliver significant results, to minimize disruption and maximize service levels.

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To learn more how Itasca Magic™ can strengthen your company's resiliency in a challenging time, contact us for a revealing conversation.

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About Itasca Retail:

Itasca Retail Information Systems invents and builds industry-leading solutions for Inventory Management, DSD, Computer Generated Ordering (CGO) and associated data management. The company provides reliable, high-performing and cost-effective solutions for Inventory Optimization, including merchandise forecasting, perpetual inventory, DSD receiving, and the hand-held devices that support store execution processes. Learn more at www.itasca-retail.com

About IHL Group

IHL Group is a global research and advisory firm headquartered in Franklin, Tennessee, that provides market analysis and business consulting services for retailers and companies that market to the retail industry. For more information, see www.ihlservices.com, call 615-591-2955 or e-mail ihl@ihlservices.com