



## OMNI CHANNEL LAUNCHING PAD

### ON-SHELF AVAILABILITY

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The term omni-channel is omnipresent in retail supply chain circles these days. It promises an [exciting array of consumer choices](#) but also presents unique challenges to supply chain execution. One of these challenges is surprisingly fundamental and predates the ecommerce era. It is the ability of the supply chain to know the on-shelf availability of the products on offer. That is to say, how much there is of a given product on the shelf in the store.

Omni-channel is the term used to describe [the interaction with the consumer in a seamless way](#) between online and offline venues and offering multiple means through which to obtain their purchases. It envelopes online orders from computer or mobile app, home delivery, click-and-collect in the store and shipping from store locations and is often encapsulated by the ethos of the consumer finding the product [‘anytime, anyplace, anywhere’](#).

### **Connecting the physical and digital spaces**

In order for omni-channel to succeed, the retailer must have the capability to identify the inventory levels in the warehouse and retail network and identify the best compromise of order fulfillment cost and proximity to the consumer to satisfy the order, all without causing stock-outs for other consumers. In order to do this properly, one of the key inputs is the reliability of the on-shelf availability. An omni-channel network that relies on using stores as localized distribution centers needs both the product reliably on the shelf, and also accurate information about the inventory levels.

This most basic of fundamentals has proved elusive to retailers. [Efficient Consumer Response](#) (ECR) estimates that on-shelf stocks outs in Europe range from 7-10%. With omni-channel demand now pulling from the shelf stock, this number will likely rise. The consequences of poor on-shelf availability can be dramatic. In 2014 Walmart estimated that it was [losing \\$3 Billion USD](#) in sales due to empty shelves, driving incoming CEO Doug McMillon to put OSA improvement among the [retail giant’s priorities](#).

As damaging as it can be to have empty shelves, the root cause is often that the store inventory count is incorrect. The retailer does not know the shelf is empty, so they are likely not taking rapid steps to resolve the problem. And more crucially, they are promising the omni-channel consumer rapid deliveries they cannot honor, often based on using stores as satellite distribution centers.

In its ecommerce battle with Amazon, Walmart is trying to [leverage its expansive U.S. store network](#) of over 4,000 doors for click-and-collect and order fulfillment. Amazon has [recently bought Whole Foods](#) in part to use its networks of stores to complement warehouse-based order fulfillment. Having an unreliable store inventory poses significant risks to the consumer lead time commitment. In-store inventory inaccuracy has even driven one large UK retailer to prepare all of its click-and-collect orders centrally and ship them to the stores for pickup, thus undermining one of the key potential benefits of the store network.

Another UK retailer admitted to us that they have so much difficulty identifying shelf stockouts that they use their omni-channel activities to perform zero-stock checks. This retailer fulfils online home-delivery orders directly from store shelves. When an order preparer arrives at a shelf and finds that there is no stock, the retailer corrects the inventory and picks the defined substitute instead. This is helpful for inventory accuracy, but only after an omni-channel customer will not receive the product they have been promised.

The growing consumer expectation for accurate information is exposing this weakness in the retail supply chain. Many retailers provide store inventory on their website, both as a consumer service and to steer them to the right store. However, this information might not only be inaccurate, but it is usually [updated only once per day](#), leaving plenty of time to get even more inaccurate as the day goes on. What was intended as a value-add for the consumer ends up being a source of frustration when the consumer arrives at the store, does not find the products and realizes they have been misled.

## The root causes of store stockouts

If omni-channel success hinges so critically on-shelf availability, it's worthwhile to look at the root causes. It's not hard to imagine reasons why the store inventory might be wrong: theft, lost inventory and misplaced products are always going to be part of the retail challenge. But, per ECR, the most common reasons are wholly within the scope of execution of the retail supply chain: an inefficient store ordering process due to a combination of poor demand plans and suboptimal order planning cycles. Even if the orders were planned correctly the products might remain stuck in the back room and not replenished to the shelves in a timely manner, often because understaffed stores looking to keep costs down will leave products on the receiving docks overnight.

Clearly, the success of omni-channel is linked to having correct information about on-shelf availability and adjusting inventory counts accordingly. Yet actually capturing the availability of stock on the shelves has proved elusive. The most common method is to measure the sell-out POS scans, using the logic that an unusual dip in sales is likely due to a lack of products on the shelf. This approach is appealing for those who would use this information for big data analysis. But it has proven to have limits to its usefulness if the product does not have a high sales velocity.

The more expensive approach would be to hire auditors to actually check the store shelves. Major retailers in both the US and UK have recently embarked on collaborative pilots with suppliers with the goal of at least trying to develop an accurate baseline of on-shelf availability. We spoke to one hardware retailer who has staffed key stores with employees dedicated to checking the hundreds of thousands of SKUs in the aisles for zero stock locations.

Managerial incentive approaches to drive focus on on-shelf availability have led to unexpected consequences. One retailer told how of the implementation of a bonus program for store managers who maintained high on-shelf availability – at least per the retailer IT system. Store managers then began walking the aisles looking for products with only one unit remaining. They would take this last unit from the shelf and hide it. This would improve on-shelf availability, but at the cost of losing the sale of the last unit; certainly an intended outcome for the retailer.

The impacts on omni-channel extended beyond overly long lead time or costs and into [poorer online consumer choice](#). Many ecommerce retailers will inhibit a product from appearing in search results if they know the product is not available. The root causes for poor online availability are more focused upstream with suppliers. The problem is starting to draw the attention of suppliers and is increasing pressure for collaborative solutions.

## Looking ahead

These solutions seem strikingly low-tech in this age of Big Data and Artificial Intelligence. In the same vein as the self-checkout concept of [Amazon Go](#) and Alibaba's [Tao Café](#), new technology approaches may finally provide a way for retailers to measure on-shelf availability and target their efforts to address the root causes. One promising avenue is to use [robotics](#) or [store cameras](#), along with recognition software, to report an empty shelf space.

Vertical supply chains may help show the way to managing on-shelf availability. [Zara](#) and [Adidas](#) are two prominent examples of companies that have implemented RFID tags on all their products. This speeds up inventory counts, reduces shrinkage and can help identify if the products have made it all the way to the shelf. Being vertical supply chains, these companies have not encountered the obstacles other retailers have had in the past when looking to implement RFID: the question of who will pay for the tags. Walmart, despite its enormous influence, famously [did not succeed](#) in convincing its supplier base to move to RFID several years ago over cost issues.

The advent of omni-channel may change the dynamic. Having accurate data will help the supply chain develop action plans and measure their impacts. One of the hidden benefits of the rise of omni-channel is that will help exert pressure on all the actors to work together on finding enduring solutions to this most fundamental of problems. This will help build the business case for investing in durable, lasting solutions to on-shelf availability.

A modern supply chain evolution may turn out to be the catalyst to resolving a classic supply chain challenge. Progress indeed!

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