



Out of Stocks, Out of Luck

How Retailers Alienate Customers and Lose Billions Due to Poor Inventory Practices

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Changing Consumer Dynamics

Consumers and their relationships with retailers rapidly changing



Ask any retailer in North America about the greatest challenge that they face, and most will mention improving the customer experience. A close second will be competition with Amazon and Walmart marketplaces. Combining these two realities results in the current situation in retail, where **customers that used to HAVE to shop in stores must now WANT to shop.**

Research has shown over 50% of all store purchases have some sort of online research component before the item is purchased at the store level. Engaging this multi-channel customer is critical. Today retailers are looking at many different options to improve the customer experience. These include Buy Online and Pick Up in Store (BOPIS), Click and Collect where consumers pick up purchases at the curb, and Ship from Store.

IHL recently conducted a survey of North American consumers about their changing behavior and experiences (both online and at local stores) with regards to out-of-stocks. As a benchmark, we studied how many households now have Amazon Prime and how they behave differently. Today, 55% of North American households have free two-day shipping with Amazon Prime, and the first question most consumers ask if they need something is “Do I need it in less than two days?” If not, they are often defaulting to making the purchase online. This is a massive change in the last three years.

The changes in consumer behavior (and the broader competitive landscape) makes store execution all the more important for bricks and mortar retailers. Unfortunately, this is where many retailers drop the ball when it comes to being in-stock on the items consumers are coming into the stores to buy.



55%

of North American Households

69%

With incomes over \$100,000

Source: IHL Group

Online Shopping More of Budget

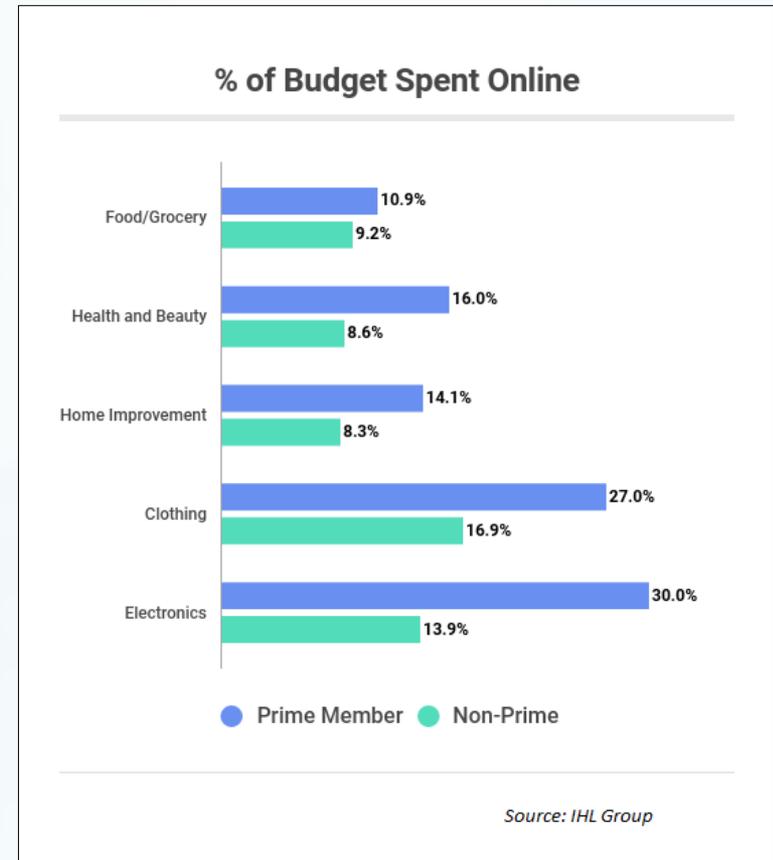
Customers spending more online and this makes converting store visits more critical



The situation gets even more interesting when one looks at the percent of monthly shopping budgets that are now spent online versus in the store. Simply, there is a significant difference in behavior between those consumers who are Amazon Prime members, and those who are not.

It's no surprise that Amazon Prime members spend a higher portion of their monthly budget online, but the level at which they spend online for clothing (27%) and electronics (30%) is significantly higher than that of other consumers. It also lends to the notion that when consumers are coming to stores, they are doing so for immediate gratification and for **“Expertise and Experience.”**

We share this data to show how quickly the market is moving in the direction of online shopping for certain categories, and how online marketplaces are playing a more significant role in the decision making of typical shoppers. As Amazon, Walmart, Rakuten, Taobao, JD.com, Tmall and others grow online, one thing to consider is that there is a realization among consumers that the marketplace is almost always in-stock from at least one provider. This is a benefit that bricks and mortar do not enjoy, since they must be in-stock the first time a consumer shows up. Poor execution in this area has become an increasing problem for consumers who spend their precious time coming to stores.



Store Remains Key Part of Online

Buy Online Pickup in Store (BOPIS), Click and Collect significant and growing

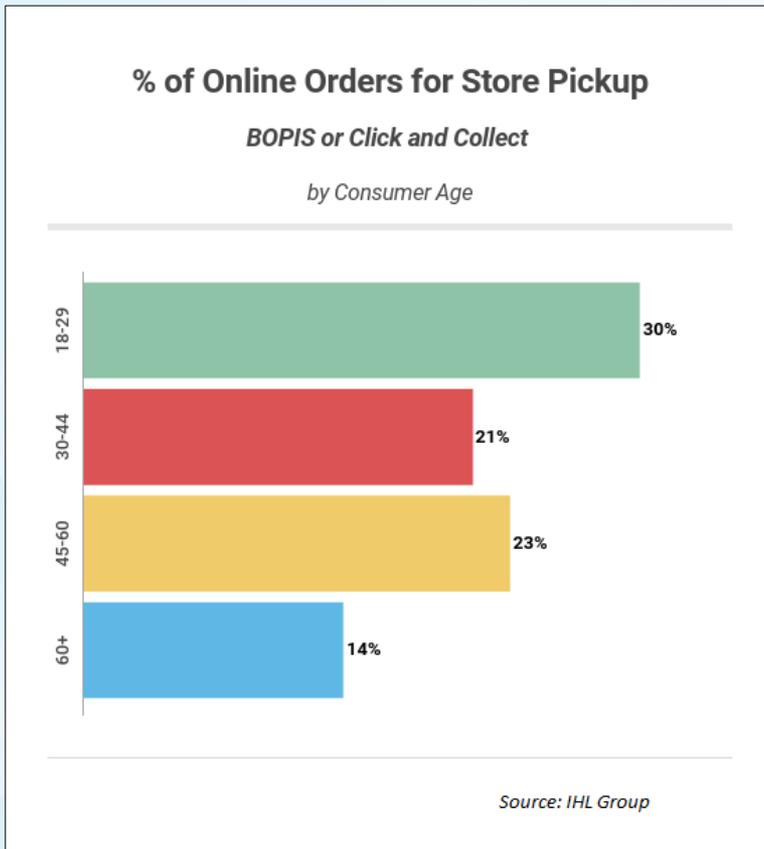


Online shopping continues to grow, but buying online and picking up at the store is growing faster still.

Today 21% of online orders are for pickup at that store level. This varies dramatically by age of consumers. Those in the 18-29 age demographic go to stores at a much higher rate than other ages to pickup online orders. In fact, although the 30-44 age demographic actually spends more of their budget online, the 18-29 age group picks up their orders at a rate 43% more often. This shows a difference in priorities: the 18-29 group has a higher bias for wanting the merchandise right away, and the older groups have a higher preference for delivery.

When compared to 60+ age group, the 18-29 age demographic are 114% more likely to pick up their online purchases at the store. When one considers that they spend much more of their budget online and pick up those purchases at the store at a much higher rate, retailers must target their BOPIS and Click and Collect ads and execution to a younger crowd.

It bears noting, however, that a big holdup of adoption by older demographics is poor placement of pickup in stores. Retailers who place the order pickup station in the back of stores simply are excluding the 60+ demographic who rated this 83% higher as a barrier to using the services than average of all ages.



Out-of-Stocks Huge Problem

Many retailers simply are not making the grade in terms of having what customers want in stock



Consumers
experience
out-of-stocks
as often as

1 in 3
shopping trips



We surveyed consumers and asked them the primary reasons they prefer to shop at stores vs online. Here were the top answers:

1. Want/need the product immediately
2. Desire to touch and feel the item (try it on)
3. Don't want to pay expedited delivery charge
4. Support local retailers
5. Convenience/Easier than online

The research also shows that many consumers are getting more and more frustrated with their experience at the local stores due to out-of-stocks. Fast checkouts and being in-stock are the two most important customer experience components. Without these, the rest don't matter.

If you ask the typical retailer, they would define out-of-stocks as simply not having the inventory in the store and having an empty shelf. However, this is not how the consumer thinks.

The consumer defines an out-of-stock as any time they come into the store with intent to buy and leave for any reason other than the price was too high.

In our research, we asked consumers how often they are encountering at least one out-of-stock item (excluding the times they buy a substitute), and the numbers are striking:

Food/Drug/Mass Merchants - 1 in 5 shopping trips

Department Stores and Specialty - 1 in 4 shopping trips

Electronics - 1 in 3 shopping trips

Cumulative Cost of Out-of-Stocks



Consumers identified 5 primary reasons they experience Out-of-Stocks when shopping in-store:

- Empty shelves – 32%
- Couldn't find staff to help – 16%
- Found staff, but they couldn't find merchandise – 17%
- Price in store didn't match ad – 18%
- All other reasons – 17%

When one factors in the out-of-stocks, the reasons, and the size and sophistication of retail markets, retailers experience \$984 billion in out-of-stock losses, \$144.9b of which is in North America.

The WW figures can be viewed [here](#). In North America, empty shelves result in out-of-stocks totaling \$47.4b. Inappropriate staffing levels or locked up merchandise adds another \$24.7b in losses. When staff could be found but they could not find the merchandise, this costs \$23.7b annually. The disconnect between the ad/online price and the price in the store accounts for a loss of \$25.5b. Finally, all other reasons account for \$23.7b in losses across all segments.

Out-of-stocks are a systemic problem that is getting worse for most retailers as most merchants are compensated on inventory turn and gross margins for their categories, not service levels of being in stock.

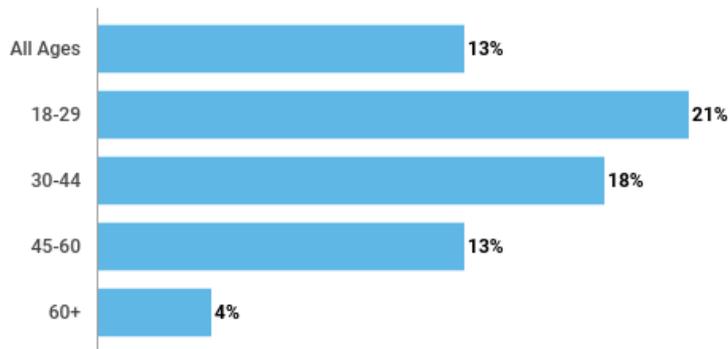
\$984b

Worldwide Costs for Out-of-Stocks



BOPIS and Click & Collect Experience

% trips Out-of-Stock at least 1 item



Source: IHL Group

The challenge with out-of-stocks has only gotten worse with the advent of BOPIS, Click & Collect, and Ship from store options. Previously unknown out-of-stocks that were hidden by consumer's making a substitute selection while shopping in store have now been exposed. This is a particularly egregious problem in grocery and health and beauty purchases because the retailer often realizes it only after the order has been made and the customer is on his/her way.

There are significant differences according to the age of the consumers. For consumers in the 18-29 age demographic, 30% of their online purchases are for store pickup. Yet, they also experience out-of-stocks at a rate 54% higher than average consumers. So not only are they choosing to come to the store to pickup, but they are also finding that when they get there, the retailer is out-of-stock for at least one item in more than 1 in 5 trips. Further, they are finding that 22% of the time their order is not ready when they get to the store.

Ship from store also provides a unique challenge in today's world. If the store-level inventory is wrong, it is literally impossible to do ship from store profitably. Technologies like enterprise order management, RFID, and Computer Vision are critical to the success of store fulfillment. Order delay and further customer alienation occurs when the inventory information is incorrect.

How Customers React to OOS

Prime Members vs Non-Prime



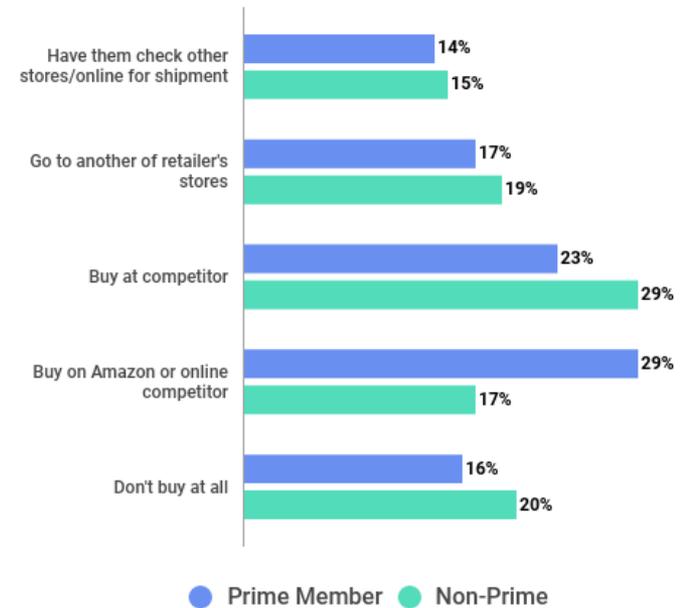
Previously we saw that 55% of households are now Amazon Prime members. We also showed how these consumers are spending a higher portion of their monthly budgets online. Here we now review what happens when consumers visit physical stores and encounter out-of-stocks.

Once again, the primary reasons that consumers visit stores are because they need it right away and/or they want to touch and feel the item or get additional expertise. When a retailer is out-of-stock Prime members react very differently than non-Prime members.

Retailers are able to save the sale for 34% of non-Prime members and 31% of Prime members for out-of-stocks at their stores. But **Prime members are 52% more likely to simply take out their phones and buy the item online after experiencing an out-of-stock at a store.** From interviews we hear “You wasted my time by being out-of-stock.” And once they do order that item from Amazon (or an online competitor) the first time, they are far more likely to not come back to the store for further purchases. In essence, the retailer who is out-of-stock is further driving the customer’s loyalty to Amazon at their own expense.

Based on the survey results, we can surmise that **upwards of 24% of Amazon’s current retail revenue comes from customers who first tried to buy the product in-store.**

Behavior When Experience Out-of-Stock



Source: IHL Group

Safety Stocks

Retailers pay a significant penalty in tied-up capital due to poor inventory levels



Beyond pure out-of-stocks, another related cost to retailers for inaccurate inventory is the added value of the merchandise that is required for safety stock. This additional cost to try and avoid out-of-stocks is really dependent on how often the retailer does inventory and how much the accuracy degrades over the period due to shrink. For instance, it is not uncommon for retailers to do physical inventories twice a year and thus their actual inventories can be off as much as 25% towards the end of the period.

To offset this, retailers play a game of adding safety stock to avoid out-of-stocks. In more sophisticated retailers, this includes adding greater amounts of safety stock later in the period as they experience losses due to theft, damage or other reasons.

In North America, IHL estimates the cost of safety stock for most retailers between 7-15% of the inventories on the balance sheet. Granted, some of that is to make the store “feel” full. But in total, we estimate that retailers in North America tie up \$24.2b in capital in extra safety stock to compensate for poor inventory practices. Further, merchant’s compensation metrics push them to favor the out-of-stock verses buying more safety stock. But in North America’s \$4.9 Trillion retail economy, the totals add up quickly for safety stock to overcome bad inventory knowledge.

\$24.2b

Amount of capital tied up in additional safety stock to compensate for out-of-stocks

Losses to Retailers/Industry

Total losses for out-of-stocks and safety stock



Cumulative Costs Out-of-Stocks

North America (Billions \$)



Source: IHL Group

In total, out-of-stocks collectively cost retailers in North America \$144.9b. With the \$24.2b in additional safety stock, that means the total problem is \$169.1b and growing each year.

Retailers are able to recapture \$47.8b of that figure because of consumers' time constraints (ordering for delivery) or previous goodwill (going to another of the retailer's stores). But the remainder is lost to both the retailer's competition and to the industry.

\$36.3b is lost to other Brick and Mortar competition and an additional \$34.8b is lost to Amazon or other online competitors after the customer physically came to the store wanting to buy.

And finally, \$26.0b is simply lost to the Industry as the consumer who was willing to buy at that point in time decided not to purchase at all once they could not get immediate gratification.

Solving the Problem

Attacking the Problem of Out-of-Stocks



Solving the issue

Cultural changes and Distributed Order Management



Culture

There are many technical solutions that assist in fixing the out-of-stock issue, but the first step for retailers is admitting they have a problem. Simply accepting out-of-stocks as a normal part of business is business suicide in an environment where consumers used to have to shop and now must want to shop.

The next step is fixing the pay plan of merchants to make in-stock position/service levels a key part of their compensation. Too many retailers compensate merchants based upon inventory turns and gross margins rather than a combination of turns, margin and max sales. Until this changes, the acceptance of out-of-stocks will be underreported, and retailers will continue to experience dwindling store traffic. Relationships end because needs don't get met. This is as true in retail as it is in personal relationships. Out-of-stocks cause consumers to look elsewhere.

Advanced Distributed Order Management

Along with the cultural issues, there are several technical solutions that assist in reducing instances of out-of-stocks. First and foremost, having a single enterprise order management system that supports inventory regardless of its location and channel for delivery is crucial in today's retail environment. Having a single version of the truth on the inventory and order is foundational for Unified Commerce. But it doesn't stop with just having the solution of where the inventory is...a good system has the ability to save the sale and optimize the shipments based on the best channel to deliver to customers. For instance, if an order comes in from Erie, Pa and your closest stores to deliver from are Cleveland, OH (but would cause an out-of-stock) or Philadelphia (further away but larger inventory that might need to be marked down soon), the enterprise order management solution needs to be smart enough to optimize the shipping for the greatest margin/sales opportunity. While one is more expensive on this sale, it avoids missing another sale by creating an out-of-stock. Having an advanced distributed order management solution with solid rules for fulfillment can be a major assist in eliminating out-of-stocks.

Better, more accurate counts



RFID and Computer Vision

RFID and Computer Vision

It seems intuitively obvious that the single most important thing for retailers and their out-of-stock issue is simply having an accurate view of the current inventory in the stores. RFID had a bad start from a public relations standpoint because Walmart tried to force it down the throat of suppliers as a supply chain system for cases and pallets. But as the world changed and the competition moved to Amazon and other online players, smart retailers realized the real value for RFID is at the item level in stores. For a typical specialty store, the payback for RFID can be as low as 3 months. It does not help the retailer if their latest inventory count is off by 25%. Further, it helps neither the retailer nor the consumer if neither knows that the size 8 black dress is in the dressing room. When a consumer can't find an item in the store, they only ask an associate for help 17% of the time. That means 83% of the time the customer leaves not satisfied.

Categories tagged with RFID have seen same store comps as high as 50% higher in limited inventory SKU's of style and size. This is because inventory counts that were once done only 2-3 times a year are now done 52 times a year (or more).

Now-not all items are ideal for RFID. Liquids, batteries, and other products with high amounts of reflective material are not ideal for RFID, but advances in Computer Vision technologies are helping to dramatically improve inventory counts. This is particularly true for Food and Health and Beauty items.

Bottom line: Having accurate inventory count and location knowledge in the store on at least a weekly basis, if not perpetually, is table stakes today. If retailers don't have this accuracy of inventory they are simply pushing customers to their competitors. We know of one top 5 retailer that has been able to reduce total inventory value by as much as 20% in their stores because they had real-time accurate inventory through RFID. As well, this more accurate inventory helps make their merchants far more effective in their buying behavior by getting better turns and removing the extra safety stock costs that tie up capital.

Looking Over the Horizon



Better Forecasting

Great enhancements have been made to forecasting tools in recent years. But improved forecasting based upon inaccurate inventory data simply produces more refined forecasts of bad data. Having RFID tools and enterprise order management can create a powerful base for forecasting for a better consumer experience regardless of how they wish to shop. But forecasting based on semi-annual inventory counts is crazy in today's world, as the retailer is able to obtain 25% or less of the benefit from the tool because the data is getting progressively worse over the period. Sadly, adding forecasting tools is where many retailers have started and ended their efforts to reduce out-of-stocks, and as our survey shows, the result is more and more disenchanted customers.

Finally – Unified Commerce Means Thinking Beyond the Retailer to Suppliers.

Between a retailer and its suppliers, there is likely enough available inventory to fulfill all online orders and save in-store sales through other stores, fulfillment centers, warehouses, 3PLs, licensed manufacturers and factories. Retailers need a better way to see and share the data from all their possible inventory assets beyond their own walls.

For forward-thinking retailers a key part of this vision is creating more integrated relationships with suppliers that include insight into item availability for direct shipment. IHL's research has shown that retailers growing their sales the fastest are 80% more likely to use 3rd-party partners for shipment of "eaches." They realize their warehouses are very good at pallets and cases, but not so much for individual orders. They have learned that orders that must be shipped are most optimally fulfilled from a distribution center, 3PL, or supplier that specializes in shipping "eaches". Acknowledging this increases assortment and reduces strain on in-store fulfillment capacities.

The ideal solution is an integration of internal and external data in a network with inventory visibility of every node in a retailer's ecosystem, allowing online orders to be filled by the most cost-effective option regardless of the location of the inventory. Such a network would provide for true endless aisle, expanded assortment options, increased fulfillment rates, and an overall lower need for safety stocks. But to do so, retailers must be sharing order data in real-time with their partners, and less than 10% of retailers have the ability to do so today.

Methodology

Here we describe how we arrived at the figures included herein.



Methodology – How We Got Here



This research combines several IHL assets and an updated direct consumer study of nearly 600 households in May, 2018. IHL has been studying out-of-stocks and overstocks since 2007. We have built a model that factors in retail sales by segment by region of the world. This includes levels of sophistication in retail, challenges for logistics, and ratio of retail sales to disposable income for key regions.

Surveys were conducted with retailers on average item costs, average basket size, and average out-of-stocks and discount percentages. Then in May we completed the 3rd of our consumer studies to review the changes that have occurred since we last asked similar questions in 2015.

One of the key changes in our survey this year is a review of how consumers are spending online, how they are reacting differently to out-of-stocks, and that impact. What was surprising is the level of out-of-stocks, which was reducing from 2007 levels in 2015, actually grew significantly from 2015 to 2018. The cause of this is previously hidden out-of-stocks in grocery and health and beauty are consumers walked the stores and purchased substitutes, now those out-of-stocks are being exposed in online orders that are picked up at store level. This is a significant problem for retailers that offer these services.

All of this data was then re-entered into the worldwide models and this study shows the resulting figures and survey data. We have a GREAT DEAL more data than is showed here. For more information or if you need further detail we welcome you to reach out to us at ihl@ihlservices.com or +1.615-591-2955.

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Thank You

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