

## Making Omnichannel Inventory Optimization Profitable

Getting the right product at the right price in the right quantity at the right time is the most complex and challenging equation in retailing.

Dozens of moving parts need to be mastered and a highly effective supply chain built. Tough decisions must be made, critical business decisions balanced, and competing missions resolved.

Take one aspect of the equation, for example, managing out-of-stocks. Being in-stock with products has always been an essential element in delivering customer satisfaction and nurturing loyalty. However, it is especially relevant in the current environment where consumers no longer passively settle for the disappointment of an empty shelf. They can check their mobile phone for nearby alternatives or order the missing product online.

And, of course, managing out-of-stocks is only half of the inventory management equation. Having too much stock is just as bad because it ties up capital, drives mark downs, and destroys margins.

So what's always been true of inventory management – that it can make or break a retailer's business model — is still true today, only the stakes are higher in the instant-gratification world of omnichannel retailing.

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Quantum Retail™

71%

**Consumers who  
expect to view  
in-store inventory  
online.**



*Source: Forrester Consulting,  
"Customer Desires Vs. Retailer  
Capabilities: Minding the  
Omni-Channel Commerce Gap"*

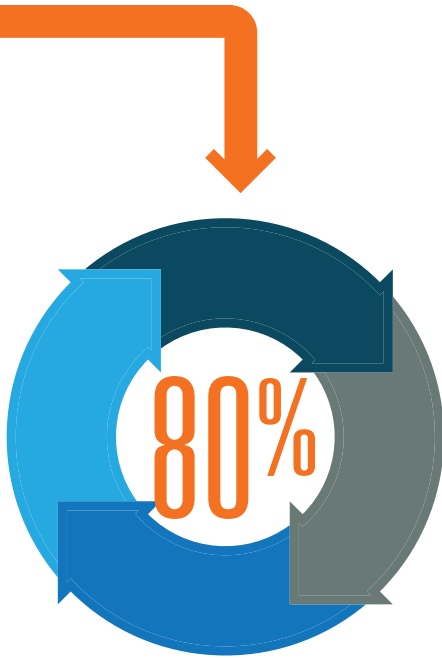
**G**iven the outsized significance of getting the demand-chain part of the retailing equation right, especially in a multichannel context, retailers need to create a 360-degree inventory optimization game plan that is built on a foundation of real-time accuracy and visibility.

Fortunately, over the past decade advances in technology have made inventory decisions far less dependent on educated guesses based on past performance and far more based on real-time demand signals.

In the grocery business, for example, computer-assisted ordering (CAO), once considered an arcane system employed only by retailers on the cutting edge, has become an accepted way of replenishing fast-moving merchandise. In a broader example, retailers across many segments share POS and online sales data with their supplier partners to pave the way for improved order accuracy and faster delivery speeds.

In some cases, leading retailers have created demand-chain systems that update in near-real-time enabling line-of-business executives and suppliers to make adjustments on the fly that closely predict purchase activity in stores or in cyberspace.

Retailers who are catching up with the leaders should think about making a leap ahead of the curve when upgrading their demand-chain systems. For example, digitally empowered shoppers today want access to real-time inventory levels throughout the enterprise and, just as importantly, they want to be able to check the status of an order while it is en route to their home. Seventy-one percent of consumers expect to view in-store inventory online, according to the January 2014 report by Forrester, "Customer Desires Vs. Retailer Capabilities: Minding the Omni-Channel



Retailers who said that 360 degrees of inventory visibility is “very important.”

*Source: Retail System Research, “Omni-Channel 2013: The Long Road to Adoption”*

Commerce Gap.” These shoppers also expect store associates to be up to date with product availability information, which is the flip side of the coin to consumer visibility and requires different systems. A final point to be made about shopper expectations is the desire for unfettered pick-up and delivery options of purchases made in any channel. Half of shoppers expect to buy online and pick up in-store, according to the Forrester report.

In order to satisfy these shoppers, retailers need to create an IT platform that offers detailed transparency of inventory levels and order status. This means consolidating siloed inventory databases into a single repository of record and merging sales reporting into a unified order management system.

Fulfillment capabilities need to be upgraded to accommodate order online/pick-up in-store, order in-store and ship anywhere (including to other stores), and transferring products from store to store.

However, only a third of retailers have operationalized in-store pickup, cross-channel inventory visibility, and store-based fulfillment.

Still, a growing number of retailers are recognizing that inventory management has become a competitive weapon. Retailers that become known for their in-stock reliability across selling channels, visibility of inventory, and flexibility of fulfillment will hold a distinct competitive advantage. To get there, though, they will need to clear several hurdles.

 **Improve inventory accuracy with store discipline and technology**

One of the biggest challenges to traditional brick-and-mortar retailing in the omnichannel world is maintain-



20x

By using RFID technology, Macy's can conduct inventory audits 20 times faster than with manual methods.

*Source: RIS News, "Macy's Takes the Lead in Tech-Enhanced Shopping"*

ing inventory accuracy, especially in stores but also across the enterprise. Store-level inventory accuracy typically ranges between 50% and 80%. Retailers have a variety of ways to improve inventory accuracy in their stores, such as scan-based receiving at the delivery dock, and cycle counts before promotional events and for high-margin or fast-moving items.

Merchants that have adopted computer-assisted ordering are at an advantage when it comes to inventory accuracy, since CAO requires a highly accurate perpetual inventory assessment to fuel its forecast of demand. Those retailers have already instituted the store disciplines needed to maintain highly accurate counts.

Inventory accuracy and visibility are particularly important for promotions. Without visibility into warehouse and store inventory on a daily basis, retailers and their suppliers are ill-equipped to know how much product to make available across channels. This results in higher out-of-stocks and more post-promotion leftover inventory.

To address this void, some retailers and manufacturers are turning to cloud-based systems that receive a retailer's daily warehouse- and store-level sales and inventory data throughout the course of a promotion. These companies are then able to plan orders and deliveries to meet demand on a day-to-day basis.

Retailers willing to invest in item-level RFID can raise in-store inventory accuracy dramatically. Macy's, for example, implemented an item-level RFID program to be able to efficiently fulfill store-to-door orders. The chain is applying RFID chips at the source, allowing inventory audits to be conducted 20 times faster than manual methods with a 95% accuracy rate.

Other technologies have emerged to help retail-

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Source: “Omni-Channel 2013:  
The Long Road to Adoption,”  
RSR Research

ers execute inventory changes at the store level in response to real-time developments like social media buzz, weather events or last-minute promotions. These systems analyze information feeds, allocate labor and assign activities, such as immediate restocking, to store employees via alerts and messages on their smartphones or tablet computers.



## Make inventory throughout the enterprise visible to consumers and store associates

Both retailers and consumers agree that inventory visibility is a basic requirement of omnichannel retailing. This is demonstrated by the finding that 80% of surveyed retailers in an RSR Research report (“Omni-Channel 2013: The Long Road to Adoption”) said that 360 degrees of inventory visibility is “very important,” with 63% of “winners” offering visibility to inventory across the entire enterprise compared to 25% of “laggards.”

On the consumer side, 71% of shoppers say the ability to view inventory information for in-store products is “important or very important,” according to the Forrester report. Moreover, 39% of consumers in the study are “unlikely or very unlikely” to visit a retailer’s store if its online store does not provide physical store inventory information. “Consumers simply won’t waste time going to a store without the certainty that the product(s) they want are in stock,” the report said.

Despite a clear consumer and retailer call for providing store inventory data online only 32% of the retailers surveyed by Forrester offer it.

Two retailers that do offer online access to store inventory are Toys “R” Us and Macy’s. On the Toys “R”

# Meeting the Challenges of Omnichannel Retailing



"The myriad inventory demands of omnichannel retailing requires retailers to assess the profit and markdown potential of each item."

**MORGAN DAY**  
VICE PRESIDENT OF  
CORPORATE AND  
ACCOUNT STRATEGY  
QUANTUM RETAIL  
TECHNOLOGY

Quantum Retail Technology is the industry's leading innovator of retail focused demand management and inventory optimization solutions designed to help retailers realize the highest value from their inventory investment. As consumer demand becomes less predictable and as buying patterns shift, many of the world's most successful retailers utilize Q to reduce markdowns, see an increase in full price sales and optimally leverage all their channels to meet their business objectives. Q combines deep retail and merchandising intelligence with a dynamic technology engine that adapts to a retailer's needs and predicts demand across their estate and by store. The Q system continuously learns and dynamically analyzes and responds to changes in demand for every product and store location to maximize value for retailers of all types. Quantum solutions drive millions of decisions every day for many of the world's top retailers and are adaptable with existing systems and business processes including JDA, Oracle and SAP. For more information on Quantum Retail technology, please visit our website at <http://www.quantumretail.com>



Quantum Retail™

## **Q: Do Omnichannel shoppers make inventory planning, allocation and sell-through more challenging for retailers?**

**MORGAN DAY:** The Omnichannel shopper does present some new challenges for retailers, but at the same time, unique opportunities.

Shoppers develop relationships with the retailer as a whole, not with the retailer's channels. Until recently they would go into a store and conduct their transactions within the store, or go to the catalog or website and do the same. In an Omnichannel environment, the challenges stem from the fact that the shopper expects to purchase in a way that is most convenient for them and then return the merchandise however makes sense for their needs. The fact that they purchase from one channel and want to return to another is representative of the seamless view the shopper has with the retailers themselves.

Retailers should understand that they can't look at their ecommerce channel as just another store. The uniqueness of online shopping forces changes in demand trends for seasonality, product lifecycle planning and pricing strategies. These trends and strategies are very different than those at brick-and-mortar locations. Looking at customer buying patterns should also help retailers rationalize their assortment across channels so they can determine which items to stock in stores and which should be exclusively offered online.

To protect the value of their inventory investment, retailers need to look for cross-channel efficiencies. It's no longer strategic to operate them as completely separate entities. Managing discrete inventory supplied by an isolated warehouse, with different SKU numbers or a fulfillment process that is independent of their brick-and-mortar supply chain is inefficient leaving retailers to pursue more advanced solutions.

## **Q: How can retailers take advantage of digital orders to move excess inventory and reduce markdowns in store?**

**DAY:** Retailers considering the impact of direct to consumer fulfillment from store inventory need to first consider the probability of full price sale and other add-on sales in the store. The impact of breaking a store level assortment needs to be considered before fulfilling a customer order directly from available store inventory.

If products are in a location where it's likely to take a markdown, you can leverage that excess inventory to fulfill an online order. You need to look at estate wide profit potential while paying attention to the granular view of store-level product performance.

## **Q: Is it important to use real-time information in making inventory decisions?**

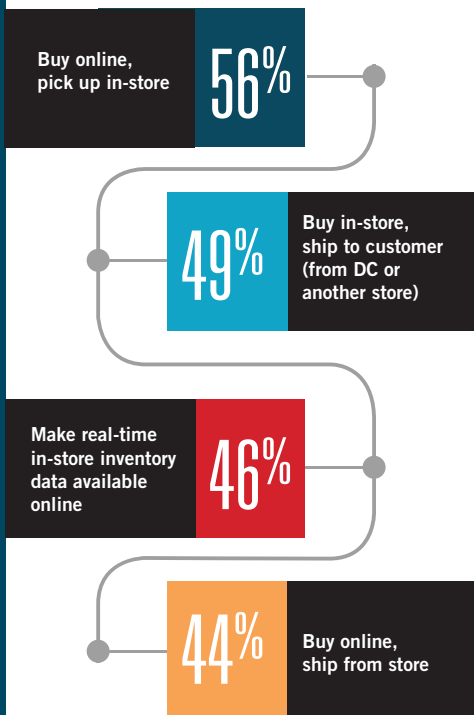
**DAY:** I would say near real-time is more important than real-time. Certainly, you need more than once-a-day batch reports otherwise critical decisions that should be made today won't be made until tomorrow. But a trickle-feed of POS data is not fundamental to demand calculations. In an Omnichannel environment, you need to provide an accurate, available-to-promise inventory position. For store-level inventory, that means having an understanding of the inventory available in the warehouse, the inventory coming in on future orders, what has already been reserved, and returns of merchandise that can be quickly returned to available inventory. Having near real-time visibility to all inventory is critical. Having inventory information available faster is not nearly as important as having inventory information that is accurate, which requires having an advanced tracking system and good business processes and disciplines.

## **Q: What key metrics should retailers use in making optimal inventory decisions in an Omnichannel environment?**

**DAY:** We look at what the retailer is trying to achieve with a product in terms of projected service level and profitability. For example, if you're going to use store inventory to fill online orders, you need to know what your projected service level is so that you're not selling inventory that would generally be bought in the store. We also seek to understand projected excess inventory and markdown potential, and incorporate that into a complex utility cost calculation. Understanding these metrics enable us to evaluate the network of inventory sources that can be used to fulfill online orders effectively and profitably.



### TOP OMNICHANNEL PRIORITIES



Source: Forrester Consulting, "Customer Desires Vs. Retailer Capabilities: Minding the Omnichannel Commerce Gap"

Us website, after a shopper identifies her local store, the website indicates whether a product is available for pick-up there. Macy's also tells shoppers whether a particular product is in-stock at a nearby store.

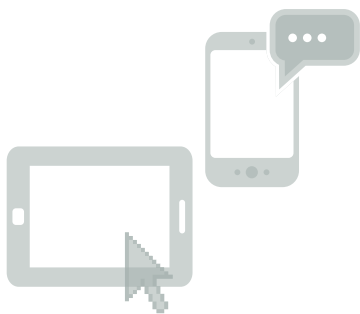
Empowering sales associates with access to inventory is another growing trend. Macy's sales associates in select departments of many stores are equipped with mobile POS handheld devices that have access to inventory information. The associate can help a customer find a different size of a product, or if it is out of stock, ship it directly to her house.

Last year, Macy's chairman, president and CEO, Terry Lundgren, said that by the end of 2013 "90% of our inventory will be visible to our associates on handheld devices."

In the Forrester study, half of consumers who visit a physical store expect the sales associate to be able look up product information for them, though only 39% of retailers have enabled this capability.

Some retailers are taking advantage of online inventory visibility by expanding their product selection significantly. For example, Stage Stores plans to offer 100,000 items online giving customer access to what is available in stores, online exclusives and direct-ship items available through fulfillment partners.

The ability to significantly expand product assortments is the result of retailers being able to leverage technology to showcase products that are not carried in stores. "Retailers are investing in kiosks and store associate tablets to showcase the extended assortment," according to Deloitte's "The Store of the Future: the New Role of the Store in a Multichannel Environment," report. "As a direct result, some retailers are now considering reducing inventory levels and therefore stock room space in stores."



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*Terry Lundgren, President and  
CEO, Macy's*

### Create an integrated IT and company infrastructure

In order to make inventory visible to shoppers and associates, retailers need to integrate all of their previously siloed channels into a seamless whole. This includes such systems as order management, point of sale, demand chain and customer relationship management. The integration, while difficult to achieve, allows for inventory to be visible and available in all touch points, and enables the retailer to leverage key customer data at the moment the customer is ready to make a purchase decision.

Truly integrated systems can provide employees with an Available to Promise (ATP) capability for each SKU. "This ATP number not only provides an accurate inventory number, but also can take into account the date the customer needs the product delivered," notes a report by The Parker Avery Group, "Omnichannel Inventory Optimization: Where Are My Products?"

Notwithstanding the need for integrated systems, 40% of retailers in the Forrester report said that they have difficulty integrating back-office technology across channels. The report found that only 6% of retailers had no significant barriers to becoming an integrated omnichannel company, which is a low number of retailers and indicates that internal technology challenges, organizational silos and poor operational execution thwart omnichannel progress.

This indicates that most retailers are not planning aggressive technology investments to enable the rollout of omnichannel programs and implementation timelines are often lengthy. As a result, many re-



## Requirements

Every major business initiative requires a detailed assessment that examines the project's impact on internal processes, technologies, personnel, strategic alignment and costs. One goal of the assessment is to identify granular and high-level requirements that are essential elements in the project's game plan. Managing and addressing these requirements is critical to success.

### Requirements for

## Omnichannel Inventory Optimization

### Strategy

- Make a cross-departmental commitment to supporting inventory accuracy, visibility, shared responsibility and unified databases.
- Invest in multi-year, multi-phased consolidation projects that facilitate enterprise-wide functionalities across all sales channels.
- Focus on breaking down silos in the following systems — order management, customer experience management, inventory management and analytics.

### Technology

- Enable demand-driven replenishment systems, data-sharing capabilities, planning and forecasting, and cost-based analysis.
- Provide managers and employees with tools that detect and monitor customer trends in real time.
- Supply employees with mobile devices that have access to real-time inventory data.

### Process

- Develop store disciplines designed to ensure inventory accuracy.
- Establish employee protocols for picking products for online orders.
- Create dedicated in-store shipping/pickup locations.
- Implement cost-based analysis for all product sales regardless of channel.

### Personnel

- Train store employees to manage online order fulfillment for out-of-stocks or long-tail sales.
- Develop upselling/cross-selling scripts for approaching customers who pick up orders in stores.
- Train store personnel to become multitask workers to meet the expectations of the omnichannel shopper.



## USE CASE

The 140-store Future Shop chain offers guaranteed pick-up in 20 minutes, sending an e-mail to confirm the reservation and giving shoppers 24 hours to collect their goods.

tailers are unable to deploy capabilities like in-store pickup despite the fact that their customers already have expectations for these capabilities.

“Despite the fact that 46% of the retailers surveyed cited that they already have a dedicated omnichannel team that includes members of all functions, fundamental silo barriers and conflicting priorities remain, with 34% of respondents reporting that conflict between channel organizations is still a major barrier to success,” according to the Forrester report.

One retailer that is planning an integrated digital platform is Belk, which is merging its operations to help it operate consistently across multiple shopping channels — in-store, online and mobile. “Customers have many ways to choose to shop with us, and this project helps us ensure our brand, our service and our fashion assortments are reflected across all channels,” says John Belk, president and COO.



### Establish stores as a fulfillment hub for shipping and customer pick-up

While omnichannel retailing emphasizes the blending of channels into a single brand, there is no question that the store represents the linchpin of the operation and a vital strategic asset.

First, the store provides the brick-and-mortar retailer with an alternative fulfillment hub that complements and even improves upon warehouses’ ability to rapidly ship web orders. At the same time, the store offers consumers a handy return option as well as the chance to procure online purchases at no cost on the same day through store pick-up.

### Best Practice



In order to satisfy omnichannel shoppers, retailers need to create an IT architecture that offers detailed transparency into inventory levels and order status.

The business case for enabling store-based fulfillment spans revenue, operational, and customer satisfaction metrics. In order to leverage these benefits retailers need to invest in order sourcing technology that determines the best fulfillment source across warehouses and stores. The system looks at inventory availability, labor availability and margin. When the rules engine is set correctly, it allows stores to sell products at full price if inventory levels are low and to fulfill online orders on products that would otherwise have been destined for markdowns.

One merchant that has created a fast and seamless pick-up experience is Canadian consumer electronics retailer Future Shop. The 140-store chain offers guaranteed pick-up in 20 minutes, sending an e-mail to confirm the reservation and giving shoppers 24 hours to collect their goods. Each store has a pick-up location with a dedicated employee.

Whether picking and delivering online orders or reserving items for customer pick-up, retailers need to effectively marshal and train their labor resources for these tasks. This includes establishing processes and time slots for picking products from shelves and the back room, sending alerts to associates and customers about order status/expectations, creating in-store fulfillment areas and pickup locations, providing associates with mobile fulfillment tools, and developing upselling/cross-selling scripts for dealing with customers who pick up orders in-store.



### Conclusion

Omnichannel inventory optimization remains the great untapped opportunity for many retailers. Getting a firm handle on the quantity, availability and flow of products throughout the demand chain enables retailers to optimize margins and drive dollars to the bottom line.

In an omnichannel world, the opportunities afforded by inventory management have multiplied, but so too have the demands by consumers. Technology, lines of business and store operations need to be transformed to meet these expectations and seize the new opportunities.

The work that needs to be done to implement real-time, transparent and centralized inventory management is all on the back-end, but real benefits are consumer facing. Better customer experiences produce return visits and loyal customers, and savvy retailers are implementing omnichannel inventory optimization as a competitive weapon.

### #TWEETABLE

**Savvy retailers are implementing omnichannel inventory optimization as a competitive weapon.**



# Roadmap KPIs Infographic

## Omnichannel Inventory Optimization

- 📍 Improve inventory accuracy with store discipline and technology
- 📍 Make inventory throughout the enterprise visible to consumers and store associates
- 📍 Create an integrated IT and company infrastructure
- 📍 Establish stores as a fulfillment hub for shipping and customer pick-up



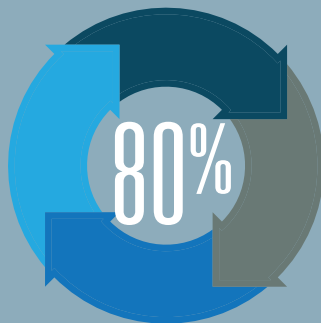
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