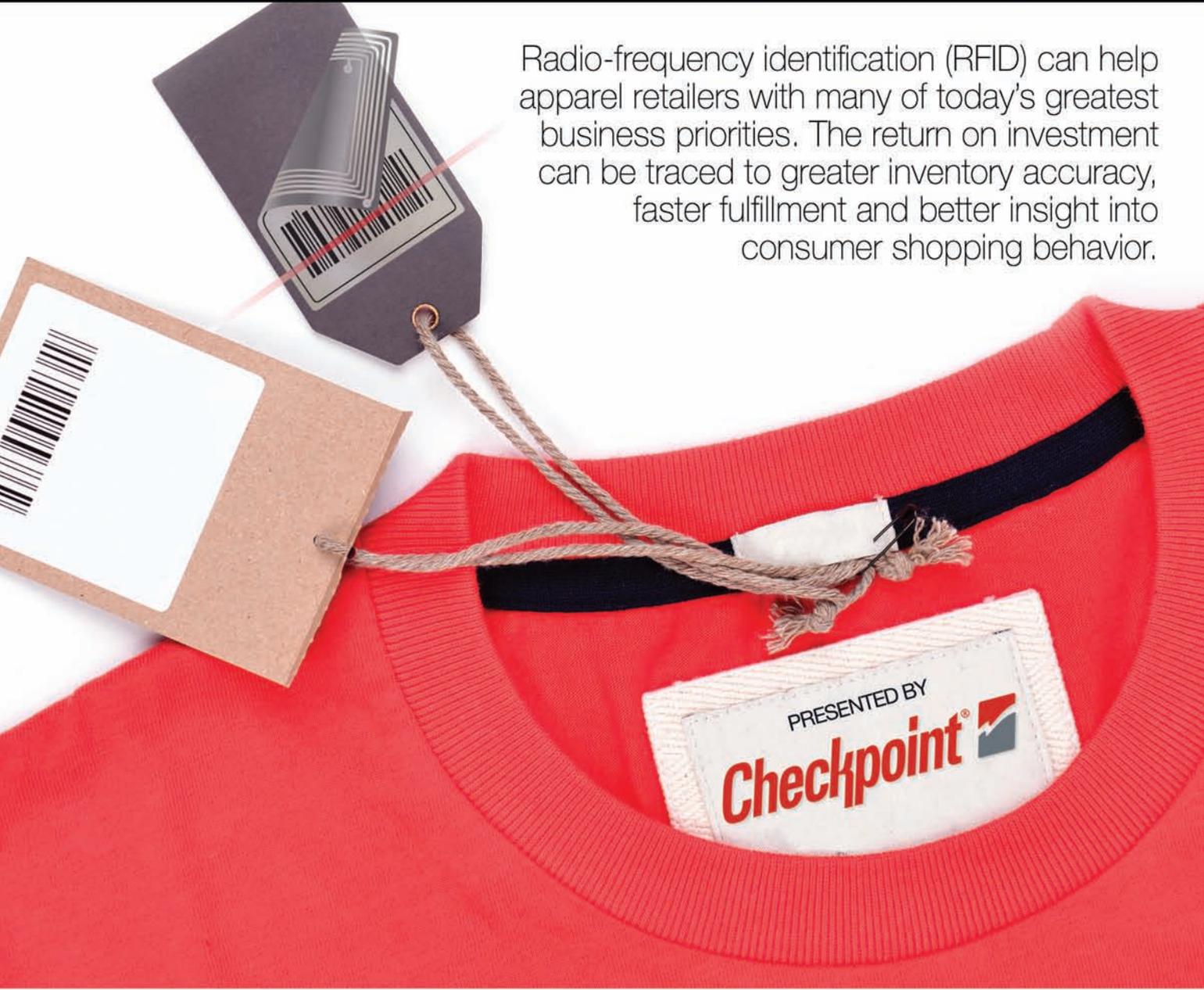


## AN Apparel THOUGHT LEADERSHIP REPORT

Radio-frequency identification (RFID) can help apparel retailers with many of today's greatest business priorities. The return on investment can be traced to greater inventory accuracy, faster fulfillment and better insight into consumer shopping behavior.



# Extracting Value from *Fashion RFID*





# THOUGHT LEADERSHIP REPORT

## RFID

Facing competing demands for resources, it's understandable that some fashion retailers may have let infrastructure-related RFID projects slide down the priority ladder. However, with competitors like Amazon grabbing market share and brands such as Uniqlo setting up U.S. shops, RFID provides the power to be more nimble, agile and efficient in serving the consumer.

In its sixth annual "The State of the Retail Supply Chain" report, Auburn University's Center for Supply Chain Innovation identified these strategic supply chain priorities:

- ▶ Improve omnichannel speed and cost
- ▶ Enable the supply chain to be a growth driver
- ▶ Rationalize and optimize inventory placement
- ▶ Support change management across the supply chain

Each of these priorities, plus many more, can be positively impacted by RFID technology. Use cases can be found from the store to the supplier.

### RFID and Flexible, Cost-effective Fulfillment

ChainLink Research, which closely follows RFID trends, expects more than 5 billion RFID tags to be used in the retail industry this year, up about 34 percent over 2015 usage. Next year, the firm predicts 7 billion RFID tags will be used. By far, most of these tags will be applied to apparel and footwear, says Bill McBeath, chief research officer for ChainLink Research.

One reason for the growth could be that fashion businesses have gotten traction with early deployments and are looking to expand its use to reap even greater benefits. To date, most apparel retailers have been leveraging RFID for more frequent and rapid cycle counting, which gives them much greater store/SKU-level inventory accuracy, says McBeath.

By some estimates, when RFID is in place, store inventory accuracy has improved from 60 percent to more than 95 percent, which means retailers can do a better job of replenishment and put a lot more faith in their inventory numbers when it comes to fulfilling online orders from store merchandise. "If you don't have accurate inventory, you potentially promise orders you can't fulfill," McBeath says.

Now more retailers are focused on refining their omnichannel fulfillment processes. They want to use RFID to streamline omnichannel pick, pack and ship operations in the store. The use of overhead readers with location capabilities could enable associates to find RFID-tagged garments much faster, whether the

fashions are on the sales floor, in the dressing room or in the back room. "That can improve the efficiency of your picking because people now know where to get things," McBeath says.

This RFID technology can be integrated with workforce task management tools to guide employees down the most efficient path for picking an omnichannel order. This applies to teams in stores as well as central distribution centers (DCs). "If you deploy RFID in the DC, it means you're picking orders faster, and you're picking them more accurately," says Robert Eastman, research director, IDC Retail Insights.

Picking speed is increasingly important for stores, says Victoria Brown, senior research analyst, retail supply chain, also with IDC Retail Insights. "As same-day pick up becomes more popular with consumers, time is of the essence," she says.

RFID plays a key role in making store order fulfillment personnel much more efficient, says Brian Gibson, Ph.D., executive director of Auburn's Center for Supply Chain Innovation and the university's Wilson Family Professor of Supply Chain Management. "Basing the search process solely on the order picker's knowledge of the store layout and where the inventory 'should be' is not a great idea," he says. "RFID is a great tool to improve speed, accuracy and fill rates. Give the order pickers a tablet with RFID capabilities, and they are quickly able to find the right products to fulfill orders."

### RFID and Responsive Supply Chains

While there is much emphasis on store RFID, the supply chain — from the dock to the DC to the store door — also is getting its fair share of attention. When suppliers use RFID to label items within cartons and containers, they can send highly accurate advance shipping notices (ASNs) to retailers. In turn, the merchant can more confidently trust that what the supplier states is in a box is actually there. "Receiving processes are faster and more accurate, meaning that there is a match between the physical inventory and the system inventory," says Gibson. "If those get out of alignment at the start of your supply chain, then it is difficult to get an accurate reading."

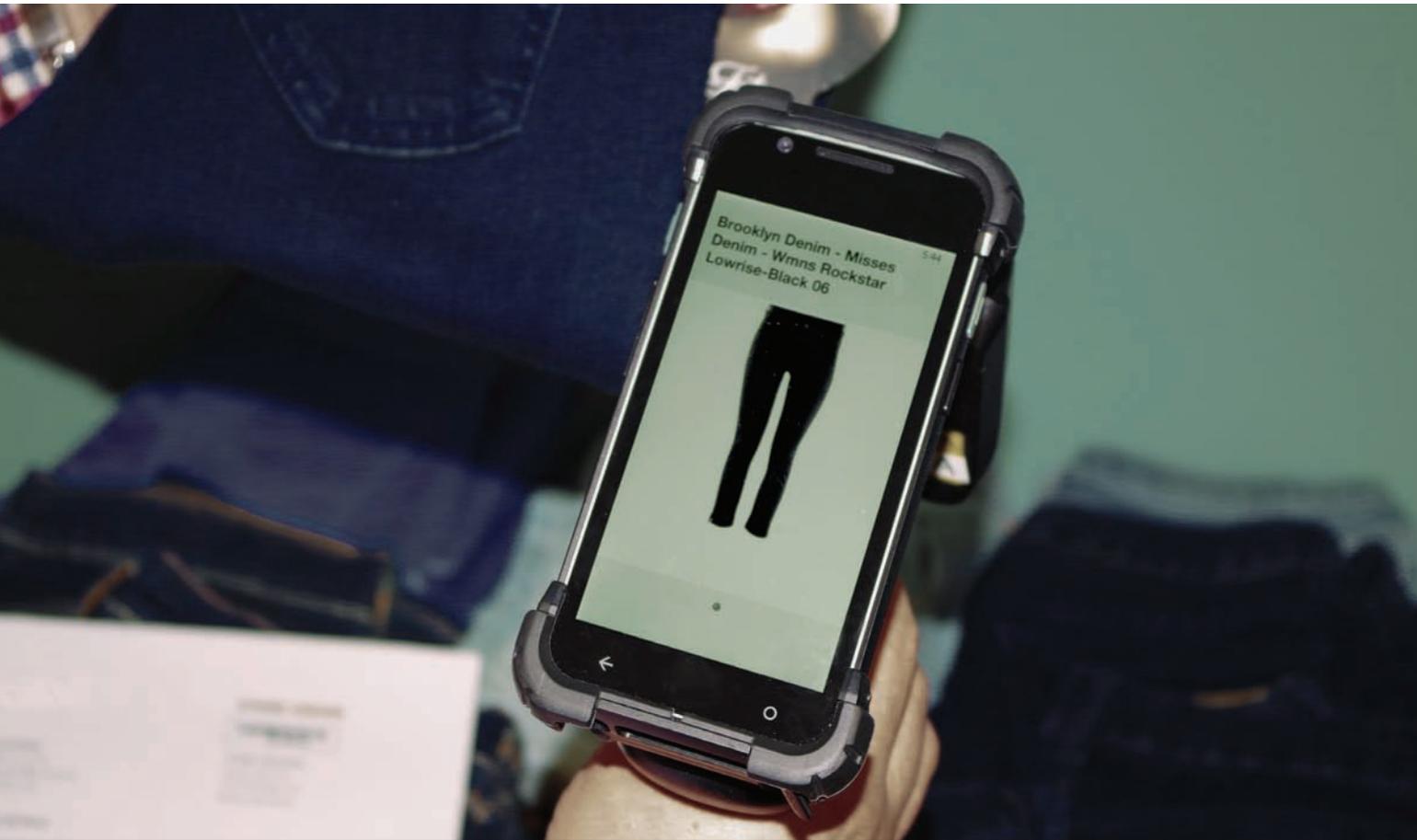
When garments are RFID tagged in the supply chain, it also makes them much easier to locate at the retail DC. With such warehouses fulfilling a good share of omnichannel orders themselves, minutes matter. "You know what you have inside your warehouse or DC, but you also know what you have in the yard," says Brown. "There are RFID tracking drones that you can fly around

# Q: Trying To Satisfy Digital Demand with Manual Processes?

# A: Automate Omni-Channel Fulfillment with Checkpoint RFID Solutions

RFID Sensors improve inventory accuracy. Checkpoint RFID solutions go one step further by automating omni-channel order fulfillment in stores and DCs.

We've helped retailers deliver *accurate orders in less than half the time* of traditional pick and pack processes.



Download our infographic "Improving Omni-Channel Fulfillment with RFID"

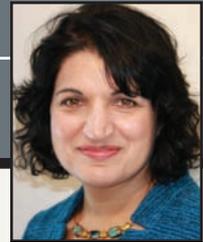
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**SU DOYLE,**  
RFID Applications Director,  
Checkpoint Systems

### **Q** How can RFID and Internet of Things (IoT) sensors help fashion retailers tackle some of their most pressing problems and priorities?

Sensor data can help fashion retailers in three important ways.

**Assortment Planning:** Fashion retailers are under pressure to deliver more frequent assortments throughout the year. New retail concepts, global brands and e-commerce players are competing for shoppers' attention. Real-time information about inventory movement and shopper behavior, coupled with trend updates from social media, can provide predictive data on what new items will sell. As such, sensor data helps to reduce the risk (and increase the return) of investing in new concepts and product lines.

**Demand-based Replenishment:** As fashion retailers implement RFID-based inventory management for fast-moving and high-value items, their on-shelf availability improves as does real-time insight into shopper demand by store format and geography. This data helps ensure that the correct items (down to the size, color and style) are stocked in stores where they are most likely to sell. When retailers integrate RFID-enabled replenishment with task management, they also ensure that restocking is a dynamic process, responding to customer demand vs. happening on a fixed schedule with little correlation to actual sell-through.

**Omnichannel Operations:** Beyond inventory management, RFID enables automated pick, pack and ship processes

for individual customer orders. Real-time inventory accuracy and location finder capabilities provide the foundation. Omnichannel leaders can accurately pick a customer order in-store in a few minutes. Omnichannel laggards may take 20 minutes to process a single order, and it may be inaccurate or incomplete. To reap benefits, retailers don't have to apply RFID tags to 100 percent of products. They can use a mixed inventory strategy in which some garments are tagged with RFID and others with barcodes.

### **Q** What key performance indicators (KPIs) can apparel retailers directly link to their RFID initiatives?

They can evaluate on-shelf availability relative to sales uplift, especially when comparing multiple stores and regions by merchandise category. They also can measure their speed and accuracy for buy online/pick up in store (BOPIS) order fulfillment. These metrics are closely linked to shopper satisfaction and store operations efficiency. RFID also can impact working capital. With stronger visibility into demand at the unit level, they can allocate inventory in a way that optimizes working capital. For example, a retailer with three stores within a 30-mile radius may choose to centralize omnichannel order fulfillment in the store with the largest back room, greatest sales volume or highest staff-to-shopper ratio. Equipped with data to make good decisions about what items to stock and fulfill, they can improve profitability and sell to the last unit.

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### **Q** For apparel retailers who are on the fence about deploying RFID, what are the risks of postponing implementation vs. the benefits of committing the resources in the near term?

It's clear that RFID inventory visibility and process automation are prerequisites for profitable omnichannel retail. The most logical place for apparel retailers to start is to automate omnichannel order fulfillment as a customer-facing logistics process. When we look at the bigger picture, sensors are proliferating across retail, from wearables, smart devices and beacons in the store to smartphones in shoppers' hands. Retailers who can start leveraging sensor data will have "first mover advantage" — insights about shopper preferences and inventory movements that will enable them to better predict and respond to consumer needs.



Checkpoint Systems is a global leader in sensor-based inventory management and loss prevention solutions for the retail industry. Checkpoint's source-to-shopper solutions span supply chain and store operations, enabling apparel brands and retailers to sense and respond to consumer needs in an ever-changing landscape. As a pioneer in developing RF and RFID technology, Checkpoint Systems is responsible for industry firsts that include the largest scale and largest scope of sensor deployments, as well as the most innovative approaches to providing enterprise-wide RFID solutions.



# THOUGHT LEADERSHIP REPORT

## RFID

Retailers also are turning their RFID focus in the direction of consumer shopping behaviors in the store. RFID can help merchants analyze the consumer's journey and decisions with new levels of granularity. Advances in sensing technology now enable stores to tell when an RFID-tagged item has been picked up by a consumer, put in a cart or basket or taken to the dressing room.

your DC yard. If you need a specific item to complete fulfillment of an order, you can quickly determine which tractor trailer it's on and have an opportunity to bring that truck to the door, identify the appropriate box to open first and get the item you need out of it."

There also is opportunity to leverage RFID in the supply chain to a greater extent to support smarter fashion allocation and replenishment. Armed with more accurate inventory visibility, some retailers are holding back 30 percent to 50 percent of seasonal merchandise at their DCs, waiting to see what sizes are selling in which locations before they fully execute their allocation plan, McBeath says. "When you have more accurate inventory numbers, then you can do a better job of positioning inventory where it's needed and do markdowns at the right pace to optimize profit," he says.

RFID-enabled visibility into inventory across the supply chain also can help curb excess buying, says Eastman. "Knowing where your inventory is — at the stores, at the DC, in transit — improves overall efficiency," he says. "If stores don't have that inventory accuracy, they're often over-ordering. If they don't know where the stock is, they add to their safety stock. To the extent you have visibility into the supply chain, you can avoid that issue, and you can get to that inventory more quickly."

### RFID and Understanding the Consumer

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This information can be important on many fronts. For example, when the store's systems know that an item is in the shopper's hands or basket, they also can know not to promise that item to an online shopper.

Analytics also can look for all sorts of patterns from this rich RFID-fueled data. As Brown explains, retailers can identify hot-selling areas of the store — places where apparel items consistently get picked up. They

can see trends in terms of which styles and sizes make it to the dressing room but don't make it to the checkout register. There also can be interesting findings about complementary items that are commonly picked up together. All of these things represent observations that attentive store associates might make, but they may not systematically relate the information to planners and other decision makers. "It brings more data to what's happening in the store," she says. "It's the datafication of the store essentially."

McBeath also sees a lot of potential to utilize RFID for better understanding of shoppers' behavior. "With an overhead reader, you could potentially see if a shopper picks something up and puts it in the basket and changes her mind. You could extract what items go together and see the sequence in which the shopper bought things," he says.

With RFID readers in fitting rooms, he says retailers can analyze "What goes in? What kinds of things are tried on together? What are they keeping? What are they putting back? Retailers are interested in all of that information, and they are talking about combining it with video analytics."

With the convergence of RFID and video analytics, it could be possible to apply demographic attributes to trends in inventory movement. "It's similar to the way a website gives you a clickstream, and you can see what people are looking at and what they are deciding to buy or not," McBeath says. "It's something analogous to that in the store. For adoption of that scenario, we're in the very early days. Today's 5 billion tags are really about cycle counting and inventory management to achieve much higher inventory accuracy. But there's a tremendous amount of interest in these other more real-time, analytic-intensive possibilities."

For retailers and brands who desire to combat and stay ahead of new competitive entities, the time to explore and/or embrace all of RFID's potential, both short- and near-term, has indeed arrived. ■