



Using Enhanced Inventory Visibility To Deliver On The Omnichannel Promise

The Importance Of Stock Accuracy To Click-And-Collect, Ship-From-Store And Intelligent Inventory Distribution Processes



WHITE PAPER

USING ENHANCED INVENTORY VISIBILITY TO DELIVER ON THE OMNICHANNEL PROMISE

Retailers live by key performance indicators (KPIs), and inventory accuracy is one that has challenged retailers for more than 50 years. According to the [Auburn University RFID Lab](#), retailers' average inventory accuracy hovers around only **65%**.

That rate has remained stubbornly fixed despite myriad attempts to reduce it, and retailers have compensated with strategies such as safety stock. But these and other workarounds have met their match: omnichannel retail. Services such as click-and-collect and ship-from-store require near-pinpoint accuracy to fulfill the omnichannel requirement that a given item will be where the retailer said it is. This impacts the bottom line.

But now, RFID is helping retailers dramatically increase inventory accuracy and deliver on these high omnichannel expectations. [An Accenture study](#) found **83%** of RFID adopters offer three or more omnichannel options, compared to only **24%** of non-adopters. During holiday 2018, [Target's in-store pickup options](#) were credited with a sales boost of **60%** more items, contributing to a **5.7%** store growth rate in December 2018, up from **3.4%** the prior year.

While some retailers enjoy standout RFID results, others are quietly building RFID skills, gaining fast inventory accuracy wins and laying the foundation for future transformative impacts. As these retailers widen the gulf between omnichannel winners and laggards, now is the time for others to begin building their own RFID competency.

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Accenture



The Inventory Accuracy-Customer Satisfaction Link

E-Commerce in general, and Amazon in particular, have rapidly moved shopping from a hit-or-miss proposition to more of a precision strike, with customers using technology to locate and purchase goods on their own terms and timetable.

Retailers with both virtual and brick-and-mortar footprints can fight back by exploiting their physical proximity to the consumer, to deliver both elevated in-store experiences and omnichannel services — not just click-and-collect and ship-from-store, but also magic mirrors, cashless stores and clienteling services that link shoppers' online activity with their in-store interactions.

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Right now, retailers' high levels of inventory inaccuracy means there is only a **65%** chance that a given item a customer wants to buy is where the retailer's systems say it is. Retailers often resort to "hiding" the last two or three items listed as in-stock from online purchasers because of low confidence that their own inventory counts are completely accurate. These retailers have learned that exposing this safety stock inventory risks disappointing the customer when the items are not actually available. Auburn University found stock-hiding rampant in research for an upcoming BOPIS report. Hiding stock means retailers miss both that sale and other potential in-store purchases. One retailer in the study found **28%** of BOPIS customers made an additional purchase, making the benefits of driving the customer into the store even more clear.

"Consumers today are not forgiving," said Dr. Bill Hardgrave, Provost and Vice President for Academic Affairs at Auburn University. "If you don't have it as a retailer, especially with a national brand, they will find somebody else who does. You get one or two chances to make a mistake like that before you lose that customer."



Unprecedented Inventory Accuracy Improvements

Given the high stakes, retailers continue to explore inventory accuracy solutions, from bar codes to computer vision. RFID has vaulted to the top of the list thanks to early adopters' outstanding results. Accenture research revealed:

- 7 of the 10 retailers studied saw sales improvement of **1.5% to 5.5%**; for SKUs identified by RFID systems as being out of stock, growth was even higher;
- Inventory accuracy rose from **65%-75% to 99%**;
- Some companies had stock availability in the high **90%** region;
- Half of the companies enjoyed stock reductions of **2%-13%**; and
- One company reported that shrink losses declined by **15%**.

Published reports reveal these impressive results:

- [Lululemon](#) achieved **98%** inventory accuracy;
- [Nike](#) will tag all of its footwear and apparel and is using RFID in its corporate stores, crediting it with providing “the most complete view of our inventory that we’ve ever had. It’s quickly becoming the most precise tool in our arsenal, to meet an individual consumer’s specific need at the exact right moment,” according to Mark Parker, Chairman, CEO and President;
- [Under Armour](#) has committed to source tagging **100%** of its goods;
- [Macy’s](#) reduced inventory accuracy variance to **2%-4.5%**; and
- Others committing to RFID include [H&M](#), [Victoria’s Secret](#) and [Foot Locker](#).

[According to IHL](#), the fastest-growing retailers invest in RFID at a **60% higher rate than laggards**. For those that have increased their RFID investments by more than **10%** this year, the expected impact on sales growth is **294% higher than for average-performing retailers, and 1,050% higher than for laggards**.



CASE STUDY

Nike Goes All In On RFID

[Nike](#) is committed to RFID as it starts embedding tags in **100%** of its goods at point of manufacture, and using RFID across its store portfolio to establish a new normal of inventory accuracy. The brand is seeking to elevate the entire industry with inventory solutions leveraging RFID and connected products.

Nike's use cases begin in-store, where RFID-enabled solutions allow the retailer to replenish its selling floor from its stockrooms, and its stockrooms from its DC, in a more precise, data-driven manner.

After a 24-month pilot, Nike started with regular scans of the entire store using [Zebra mobile RFID scanners](#), both front and back of house, as well as item replenishment on the sales floor, display compliance and product locator. Product locator capabilities are designed to empower sales associates so that they can provide better customer service, by giving them the confidence to find the actual last unit in the store. Customers will be satisfied, and the stores will enjoy a healthier sell-through rate.

RFID also opens up omnichannel options, and provides brands like Nike with a clearer picture of their entire supply chain. The ability to implement track-and-trace and to monitor products from factory source all the way out to the consumer will be critical to Nike's ability to optimize and gain efficiencies within its supply chain, with the ultimate goal of better movement of product.

While it's still early, Nike's experience so far has demonstrated RFID will have a substantial impact, with implications in **demand planning, supply planning, anti-counterfeit and customer experience**.



CASE STUDY

Focused Approach Brings Quick ROI Payoff For TFG

Improving stock accuracy was critical as [TFG's](#) broad array of South African and European retail brands — including [The FIX](#), [@home](#), [American Swiss](#) and [Totalsports](#) — began to offer omnichannel services such as click-and-collect and express delivery from stores. With such high stakes, TFG put several RFID solutions through pilots to ensure the solution could stand up to the rigors of many different store environments.

While some goods arrive with RFID tags already attached, TFG staff tag other items in DCs and stores using [Zebra ZD500R printers](#). Each morning, store associates use [Zebra RFD2000](#) mobile readers to quickly collect and upload current stock positions and ensure accurate data for omnichannel services.

Now, stores count inventory in minutes instead of hours, and stock accuracy has rocketed from around **75%** before RFID to nearly **98%** today. The solution also helps ensure timely refills of stock from the back room. Together, both have driven increased sales. In just months, TFG rolled out RFID to **1,200 stores, with a plan to reach 2,400 by March 2020.**

Key to the project's overwhelming success was focusing on how the new processes impacted staff. TFG created a dedicated Stores Change team to manage rollout. TFG also created an RFID "champion" in each mall, where TFG may operate as many as 18 different brands, to serve as an expert resource for the other stores.

"This is the biggest single project we've ever undertaken," said Greg Walsh, Head of Omnichannel Systems. "We had to be extremely focused about going after stock accuracy as our first and primary initiative, but its success has many in the organization excited to apply RFID to additional opportunities."



A Breakthrough In Accuracy And Visibility

RFID works because it provides a global view of individual, serialized items with minimal human interaction and without the need for a line of sight. That virtually eliminates manual errors and provides instant visibility to what's in stock. "RFID allows computers to know what's going on in the real world," said Mark Roberti, Founder and Editor of [RFID Journal](#).

That real world is complex. In apparel, for example, retailers must manage a constant churn of new styles, stock the right assortment and then locate just the right size and color for the customer — the individual item that may be on the shelf, in the dressing room, in the back room or in an abandoned cart somewhere in the store.

"Retailers particularly are bad at having the item at the right place at the right time during the biggest rushes in the holiday season," Roberti said. "You have the item in stock, but the customer came in, couldn't find it and left. And now it's after the holiday season and you mark it down and sell it for a fraction of what you could have sold it for then."

Because of their high margins, SKU complexity and high compatibility with RFID technology, apparel and footwear are a sweet spot for RFID in retail. But retailers are now expanding applications to include accessories, sporting goods, automotive and health and beauty.

RFID technology has advanced considerably since the early 1990s, when Walmart initially mandated it for tagging pallets and cases in the supply chain. In the years since, it became far more standardized, reliable and cost-effective:

- Overall RFID solutions sets including hardware and tags have declined in cost;
- Both readers and tags have become increasingly more efficient in delivering read performance;
- RFID-specific software has emerged to deftly manage large volumes of serialized data, and;
- Products once thought hard to read, such as [metals](#) and liquids, are now in scope with new innovations.

These advances have made RFID solutions far more suitable for in-store applications. As a result, many retailers beginning in-store RFID applications see an ROI within 12 months — often in three. Despite these successes, many non-adopters still hold onto old negative perceptions of RFID, a stance that is costing them in omnichannel competitiveness.

Once RFID is in place, it offers a broad array of additional game-changing use cases, including display compliance, anti-counterfeit, security, track-and-trace, distribution and shipping efficiencies; it can also provide information to the consumer such as product content and sourcing or links to demo videos. One retailer identified as many as **32** use cases, and Auburn University has backed this up with **more than 60** identifiable use cases.

CASE STUDY

RFID For Shoe Wall Brings Multiple Benefits To Big 5 Sporting Goods

For [Big 5 Sporting Goods](#), the footwear display wall drives more than **30%** of sales. But it requires constant maintenance to keep the display compliant with shoe buyers' instructions — so much so that stores would break up reset tasks over 14 days, finishing just in time for the next 60-page printout of reset orders to arrive. Corporate had no visibility into a given store's wall display compliance or its impact on sales.

Big 5 used RFID to design an uncomplicated solution that worked with its other systems, offered easy training and saved stores time. Now, to add new styles to the display wall, Big 5 pairs the UPC from each style's shoebox to an RFID tag that is then affixed to the display shoe. Once all display shoes are tagged, a worker scans the entire wall using the [Zebra RFD8500 RFID mobile reader](#) to identify and remove any duplicates.

Now, **“stores are refreshing the shoe wall weekly and doing so in less than an hour,”** said Jackie Coulter, Project Manager, Management Information Systems. Stores often double-check it before the weekend rush to ensure full compliance and boost sales.

The solution helps drive revenue by ensuring styles are available to see and buy. It also provides visibility to Corporate to confirm compliance, and fuels insights through integration with its business intelligence system.

Now Big 5 is looking to apply RFID to new categories and use cases. “The ROI on RFID has exceed expectations,” Coulter said. “It was a fantastic experience.”



CASE STUDY

At Outdoor Voices, RFID Exceeds Expectations

Fast-rising apparel retailer [Outdoor Voices](#) was born into omnichannel, and it knew that to grow from its current nine stores to 200 or more, high inventory accuracy was a must. But it wasn't there yet.

Between cycle counts, inventory would drift thanks to the daily business of retail: returns, shrink, items moving in and out for events and so on. It's not that inventory disappeared; while total units could be five to 10 points off, inventory would be 30 to 35 points different than expected: two fewer size 8s but three additional size 10s, for example.

Executives knew RFID was the answer, and they were right: After deploying RFID to stores, inventory accuracy soared from the **mid-60s to 99%**. Outdoor Voices also increased stock availability, sales and conversions. "It far exceeded our goals in all three of those measurements," said Nate Peterson, VP of Supply Chain.

The retailer got there by starting with pilots to identify the right solution. For hardware, Outdoor Voices wanted a well-constructed, highly recommended solution, and "we felt it was most urgent for our associates to be able to have the RFID scanner device attached to one hand and still have a free hand available to move the product along," said Kevin Harwood, VP of Technology.

The most challenging part wasn't rolling out the solution or even integrating software, but overcoming the business and process challenges. However, the investment has paid off. "We've had a large increase in terms of trusting our data and our systems as a result of rolling this out, which only allows us to now be taking on more and more advanced things," Harwood said.



8 Steps To Successful RFID Implementation

Achieving 30-point inventory accuracy increases will transform a retail operation, by both enabling essential omnichannel services to deliver on their promise and enriching retailers' ability to see and control many aspects of their business. Highly accurate data makes investments such as advanced analytics and artificial intelligence more actionable and effective.

But because RFID operates quite differently than current retail processes, it requires a sustained, enterprise-wide commitment. Following these steps will help smooth the way:

- 1. Set a clear goal.** Start with a specific objective: enabling click-and-collect, improving loss prevention or enhancing the customer experience. But don't get too narrow, or "you may end up deploying the technology that solves those but does not scale up to solve other issues," said Auburn's Hardgrave.

Most retailers should look for use cases surrounding inventory accuracy and visibility. Roberti recommends directing initial projects to more complex products such as jeans or bras will provide additional insights into RFID's challenges and rewards.

- 2. Ensure leadership commitment.** Enthusiastic and sustained leadership will help overcome organizational hurdles. For Nike, support and alignment from senior leadership provided a valuable unlock for its RFID projects.
- 3. Employ change management principles.** "RFID is wireless technology in a bar-code world," said Jonathan Gregory, Director, Industry Engagement at [GS1](#). "That paradigm change requires some significant change management given the decades of bar-code management." RFID can also expose new issues, such as a lack of standards compliance from suppliers, that require remediation. It takes a strong cultural commitment to change to navigate these new insights.



4. **Create an IT roadmap.** Integration of an RFID solution should be well-planned, since it can require pulling data from multiple systems to be most effective. Most ERP and merchandising systems were not created with serialized, item-level data in mind. A retailer's SKU count, multiplied across individual items, updated far more frequently, generates a tremendous amount of data that must be managed and accessed to provide near-real time inventory visibility.

So retailers implementing RFID should create a parallel, interim IT architecture to handle RFID tasks while updating ERPs for financial reporting. Inventory systems may also have to accommodate a mix of both tagged and non-tagged items to incorporate new lines. Integration can be challenging.

Retailers must also aggressively build toward an integrated future. "Retailers will roll out aggressively to get inventory accuracy, but they also must start changing their systems, and that makes it doubly tough," Auburn's Hardgrave said.

Designing RFID data formats, management and storage also requires care. To keep from developing disparate views of data over time, Nike was strongly aware of the need to be thoughtful about how it captured product inventory information throughout the journey, how it designed its approach and how it looked at the data being collected.

Long-term planning should also include hardware. While most retailers currently use mobile RFID readers, overhead readers can provide additional benefits and should be considered.

5. **Leverage standards.** Using [GS1 industry standards](#) ensures tags and data are interoperable across trading partners and systems. Standards allow a tag created for one brand or in one region to be understood and interpreted in another region. Using standards "enables somebody to not worry about, 'Is this going to work?'" added GS1's Gregory.
6. **Identify a tagging strategy.** Vertically integrated brands like Nike can ensure RFID tags are applied to their specifications at point of manufacture, where the process is typically most cost-effective and enables tags to be used through the entire supply chain.



Other retailers can leverage the growing roster of similar companies whose collective commitment to 100% source tagging will put RFID-tagged goods into their supply chains. But for their other merchandise, retailers must work with their sourcing partners to ensure tag application, or add tag application processes after they take possession of goods.

Those decisions will shape others, such as whether tags should be applied to hangtags or be incorporated directly onto products. Retailers must also ensure every tag is properly encoded, adhering to standards and avoiding duplicates. “It’s a big job. I don’t encourage retailers to do it,” said *RFID Journal’s* Roberti, who recommends employing a service provider instead.

- 7. Nail it before you scale it.** Because RFID requires new processes and skills, a solution must be 100% ready before moving into full rollout. For most retailers, taking on RFID means building skills and being willing to fail and learn. That includes tailoring RFID solutions to your specific needs, testing repeatedly, working out the bugs in proof-of-concept projects and then piloting prior to large-scale implementation.

According to Hardgrave, retailers often overlook several important steps. For example, he often sees retailers increase inventory accuracy without improving metrics such as sales or shrink, because they haven’t tailored the solution to address those measures. He advises collecting baseline measurements based on the use case, as well as establishing control stores against which to compare the RFID stores.

- 8. Ensure comprehensive training.** This vital last step helps users understand both the process change and how the technology will transform the operation. Helping store staff familiarize itself with the need for change, and teaching them the new processes, leads to increased sales and profitability.

Big 5 used a train-the-trainer approach, teaching a regional supervisor in each district who then trained others. Training materials included step-by-step handouts, interactive webinars and courses and demo equipment. “We did a ton of training,” Coulter said. “That was worth its weight in gold because then it was top-down. The original supervisors got to see for themselves how valuable this is, which set up our IT department for success.”



Conclusion

Retail has survived decades of ever-increasing consumer demands despite inventory accuracy levels that have remained stubbornly at 65% — but omnichannel represents the breaking point. With leaders boosting inventory accuracy by as much as 30 points and outpacing non-using peers in the number of omnichannel services they offer, RFID laggards should begin building RFID competency and elevating inventory accuracy to 21st century requirements.



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