TAKEAWAYS

- 1 Inaccurate inventories cost the global retail industry over \$1.1 trillion a year
- The Internet of Things can help retailers keep track of products from the factory to store shelves
- Introducing the IoT as an inventory solution is a great way to start realizing the power of the IoT in retail

The Internet of Things has emerged as a key solution for retailers looking to thrive in a time of radical transformation. The insights from connected devices and data analytics are behind some of retail's great success stories. Retailers are finding that IoT-based solutions are saving money, delighting customers, improving inventory accuracy, and helping employees make smarter decisions faster.

The IoT holds enormous potential for retailers, but IoT solutions are still far from widespread in the industry. Many retailers may not be sure how to start an IoT initiative, even if they know an investment in the technology will yield returns. We talked to Greg Buzek, president at research and advisory firm IHL Group, about a new report investigating areas where the IoT can most help retailers. We started with a question about retail's "trillion-dollar problem."

Q: Why is inventory such a problem for retailers?

A: Too many retailers still rely on physical inventories. The results are imprecise and corrections are little more than guesses. Retailers are often unaware of how big the problem is. You can see the disconnect in two conflicting stats. Retailers will tell you that they are in stock 92 percent¹ of the time because that's what their systems are reporting. But our research shows that customers find what they are looking for only 75 percent of the time¹. Over \$1.1 trillion vanishes in the gap between those two numbers every year¹.

Q: What can retailers do about the inventory problem?

A: Retailers have been focused on this problem, but short of doing daily full physical inventory counts with personnel (which is extremely costly) the issue really doesn't go away without implementing a technology solution, because merchants and executives are making decisions on faulty data. In our view, there are two technologies that provide a huge step forward in reducing the problems of out-of-stocks and overstocks, and those are RFID tagging and video analysis. We've seen inventory accuracy rates reach 99 percent after retailers install the right combo of tags, sensors, and cameras¹.

Q: How does that work?

A: This is the power of the Internet of Things in a nutshell. When you have item-level insight into what's in the store, where it is in the store, what's in



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—Greg Buzek President at Research and Advisory Firm IHL Group the warehouse, and what's in transit, sales associates can replenish shelves and fetch strays from dressing rooms more efficiently. Overstocks and out-of-stocks are dramatically decreased because decisions are made on accurate information, not counts off by 25 percent or more¹. Looking a little bit into the future, advanced inventory systems will be tied to customer data programs that allow sales associates to make alternate suggestions when an item is out of stock.

Q: How else can the IoT help retailers?

A: One of the really cool things we're seeing is IoT technologies used for real-time, intelligent CRM (customer relationship management). Consumers today expect something in return for the data they give retailers. Customer data paired with in-store beacons, sensors, and Wi-Fi lets you provide awesome personalized shopping experiences. Our research shows that less than 50 percent of enterprise retailers use customer profiles in real time at the store level¹. But the retailers that do use CRM profiles in real time see an 87 percent higher sales increase on average than those who don't or can't¹.

Q: Can you give me an example of what a personalized shopping experience might look like?

A: Sure. Imagine you can deliver a special promotion for a specific product to a customer at the exact moment that customer is walking down the aisle where that item is kept. Retailers do this online but not in the store or in the mall area. You know where the customer is in the store, you know what they have been browsing on your site online, you know what the customer is likely to buy, you know the item is in stock, and you know where it is in the store. That's using the power of the IoT to upsell. The figures vary by retail segment, but a one-item increase per visit can equal a 25 percent boost in order size¹. If you're talking about the grocery business—with crazy-thin margins—another item in the basket might be the difference between a profitable transaction and a money-losing transaction.

Q: Customer conversion is critical at a time when foot traffic is down. Research shows that while fewer customers are shopping in stores, consumers who do have a strong intention to make a purchase. How else can the IoT improve the customer experience?

A: With the IoT, retailers can understand how customers walk through their stores. Where do they stop? What do they pick up? What do they pick up and then put back? With sensors, video, and cell phone-tracking technology, retailers can have unprecedented insight into how customers actually shop. Here's an interesting stat I read recently: McKinsey estimates that an optimized store layout can translate into a 5 percent rise in profitability¹. We feel this number is really low because you can no longer discount the value of a strong customer experience. When a consumer has a good customer experience, they are more likely to come back and more often. You do this consistently better than your competitors and that customer will shop more times at your store. So it has a multiplying effect.



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Q: How do you advise retailers to get started with the IoT?

A: Focusing on improving the inventory accuracy has by far the quickest and most effective impact as the benefits drop right to the bottom line. A sale lost due to out-of-stock results in not only lost money, but a bad customer experience as well. You get both by focusing where first. After that it really depends on what kind of retail you're talking about. A mass retailer might want to focus on in-store personalized promotions. A supermarket might begin with intelligent CRM. But here's what's true for every retailer. The IoT helps retailers improve the customer experience inside stores and also helps retailers turn their physical locations—already an advantage—into a bigger competitive edge. Smart retailers are using IoT technologies to make stores the distribution points for orders placed across channels.

Q: This is a time of transition for the retail industry. What do you see the retail landscape looking like in five years?

A: One thing is certain, there will be changes. What we are seeing now is a giant reconstruction project for retail, and the IoT is playing a big role in this transformation. The retailers that use technology to leverage their existing assets while improving the customer experience will be thriving five years from now. People love to shop and they love to shop in stores when the experience is personalized and convenient. That's not changing anytime soon.

