

# DIGITAL SOLUTIONS ADVANCE INVENTORY MANAGEMENT

**Retailers embrace digital transformation strategies** to drive productivity, efficiency and a better customer experience.

## EXECUTIVE SUMMARY

Retail is constantly revolutionizing itself through technology. The intensely competitive nature of the industry leads organizations to continually experiment with and adopt new solutions that they believe might give them an edge. But that same competition means that only those technologies with a direct impact on customer experience are likely to last.

Increasingly, retailers are discovering that a hidden corner of their operations – one mostly unseen by shoppers – can leave customers either delighted or deeply unsatisfied: inventory management. Especially with the rise of online and omnichannel retail, the ability to keep tabs on the supply chain and fulfill orders immediately is essential.

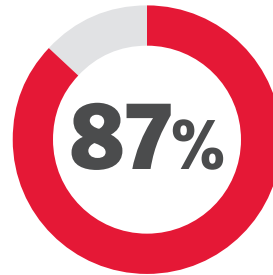
A digital transformation strategy that incorporates inventory management tools can create a unified, connected experience for customers and give workers the tools to be more productive and efficient. A robust inventory management system often incorporates a mix of software, hardware, mobile devices and apps, data analytics solutions and security tools. All of these aim at making it easier to put products into customers' hands, when and how they want them.

## Digital Initiative Investments Yield Dividends for Customers and Employees

Two decades after the first large, online retailers began shipping goods to customers' doorsteps, and more than a decade after free and fast shipping became an option for many online customers, brick-and-mortar stores are still the hub of multichannel retail. Eighty percent of all transactions occur in stores, as do 70 percent of product returns. While online retailers provide ample competition for traditional retailers, digital disruption has only truly devastated a few specific corners of the retail industry, such as video rentals and music sales. Despite the fact that almost every item that customers can buy in a retail store can also be purchased online, many brick-and-mortar retailers are thriving.

A large part of this success, of course, comes from traditional retailers that embrace digital transformation, rather than resist it. Today, it is the norm for retailers to interweave physical stores with online sales: accepting returns at brick-and-mortar locations for items bought online, using stores as "showrooms" to display products that customers might end up ordering over the internet and helping customers place online orders for out-of-stock items.

Going forward, it will be even more important for retailers to make digital transformation work to their advantage. That's especially true as emerging Internet of Things technologies promise to help organizations across all industries collect and analyze data that will lead to new business intelligence insights. In retail, digital transformation strategies primarily revolve around two goals: creating a unified, connected experience for customer interactions with staff and systems, and giving workers the tools to be more productive, efficient and relevant to shoppers.



The percentage of millennials (those between the ages of 18 and 36) who have used "click and collect" systems to order products on their mobile devices and pick them up in stores.<sup>1</sup>

In "The Case for Digital Reinvention," McKinsey & Company researchers say that despite the appearance of ubiquitous digitization, the reality is that many companies have yet to embrace it. And when companies do so, they see considerable variation in their return on investment, according to a survey of respondents representing a wide range of industries. This means

that, for maximum impact, retailers need to be savvy when it comes to the solutions they choose and how they integrate them. Many companies find that an inventory management strategy can help to drive improvements in both customer interactions and employee efficiency.

In fact, McKinsey researchers say that digitization has had such a dramatic influence on customer engagement that modernizing this area is essentially a "must do" for companies that want to compete. They also find a strong correlation between investing in digital initiatives and marketplace success. The cause-and-effect relationship is unclear, but digitization is definitely a differentiator, McKinsey says: 49 percent of market leaders

invest in digital more than their competitors. And the worst-performing 5 percent? Ninety percent of them invest less than their competitors.

## Digital Transformation Creates a Unified, Connected Retail Experience

Retailers can drive digital value in a variety of ways, but retailers tend to associate inventory management with the supply chain side of the business. In practice, however, better inventory management can create value in all aspects of a retail operation. Better inventory management solutions can make employees more productive by reducing the time they spend searching for items and giving workers ready access to product

## The Omnichannel Landscape

Omnichannel retail — the practice of providing integrated shopping experiences across both brick-and-mortar stores and a number of digital retail platforms — works. According to Harvard Business Review, shoppers who use multiple channels spend an average of 4 percent more in physical stores and 10 percent more online than single-channel shoppers. And contrary to popular belief, people who research their purchases online tend to spend more money at brick-and-mortar stores, rather than less.

Without proper inventory visibility and management, however, omnichannel can create supply chain challenges.

If a customer places an order in a store, for example, a retailer must decide whether to replenish the item to the store itself or to the warehouse (or possibly another store location) that fulfilled the order.



Omnichannel can have a positive impact on inventory management when systems are properly integrated. Supply chain strategy software lets retailers move merchandise from website to store, website to consumer or store to consumer — potentially reducing the need for warehouse space and lowering inventory management costs.

information. They can contribute to innovative campaigns, such as personalized advertising, by supplying retailers with better data for analytics programs. They can also improve security and reduce theft.

Perhaps most importantly, inventory management tools can have a profound impact on customer experience. Customers want a greater ability to track real-time inventory across all locations, particularly through new or improved software. In fact, according to a February 2017 consumer survey by the International Council of Shopping Centers, many of the retail tech initiatives that excite shoppers the most are those that will allow them to instantly access inventory and product information. For example, 41 percent of shoppers said they were interested in interactive shelves that give product information, and 36 percent were interested in in-store tablets that would show a larger offering of products to purchase.

A large portion of customers expect retailers to make significant digital transformation investments in inventory management in just the next few years. Sixty-two percent of shoppers said they expect that, by 2020, they will have the ability to know if products or sizes are in stock without asking a salesperson, according to the International Council of Shopping Centers study. Fifty-four percent said they expect to be able to input a shopping list on a store app and instantly receive a map to locate products by 2020. And 43 percent of shoppers expect that fitting rooms in 2020 will be equipped with smart tablets that help them find sizes and colors while trying on clothes.

All of this is easier said than done, of course. For inventory management solutions to create real value in an omnichannel retail world, they must work seamlessly across different systems — giving customers a unified retail experience, even as they switch back and forth between retailers' brick-and-mortar stores and online platforms. The key is the ability to migrate data across all systems. While most large retailers are now reaching customers across multiple channels, the reality in many companies is that not all business units are aligned with the omnichannel concept. Instead, many continue to work in silos. In

the new model, customer interactions are unified, streamlined and connected, regardless of location.

By their nature, online-only retailers tend to give customers a unified experience. Shoppers can instantly see stock information, compare prices, place preorders, read customer reviews, choose from practically limitless items and often obtain free shipping. It's a lot to compete with. But by implementing the right inventory management solutions, retailers can empower staff to engage more effectively with customers and leverage the often-overlooked advantages of physical stores that can serve as a hub for their entire brand.

## Better Inventory Management Increases Staff Productivity and Improves Customer Service

Improvements to inventory management tools and processes give retail locations and their employees the ability to transact from anywhere, while gaining instant access to mission-critical information. Much of this work focuses on improving and connecting employee-facing systems and tools. But increasingly, customers want to access inventory information themselves. While it can be daunting to think about just how many different IT tools and systems touch inventory management, retailers don't need to tackle everything at once. In many cases, even small, incremental piecemeal improvements can yield significant results.

Investments in inventory management technologies can help retailers achieve the following capabilities:

**Real-Time Visibility** — By rearchitecting and connecting back-end systems, retailers can achieve real-time visibility into their inventory. That applies to not only the immediate location, but also other stores and fulfillment centers. And by equipping floor employees with mobile devices capable of accessing this information in real time, stores can give them the ability to help customers find out instantly whether items are in stock at a nearby location or can be shipped to their homes — perhaps saving an otherwise lost sale.

Retailers with mature omnichannel programs must continue to invest to optimize customer experiences. Seventy-nine

## Mobile Solutions, Mobile Employees

Throughout most of retail's modern history, employees could either staff a cash register or help customers on the sales floor, but not both. Mobile solutions, however, let workers move out from behind the cash wrap to better serve customers. This change shifts customer interactions from being merely transactional to experiential.

Mobile point-of-sale (mPOS) tools give employees the ability to accept payment from customers anywhere in the store. This makes more employees available to answer

shoppers' questions around the store, and it helps with line busting. Although some national retailers have been using mPOS for several years, it's still relatively uncommon, and customers are often surprised and delighted when they're able to pay for an item immediately rather than stand in line.

One hidden benefit of mPOS is that it may increase employee satisfaction and engagement. Studies show that nearly half of retail workers prefer using mPOS, and more than 60 percent say mPOS has made their jobs easier.



percent of adults who buy or reserve products online to pick up in the store expect to be notified within two hours that orders are ready. Meeting this expectation requires technologies that optimize operations, including fast, accurate inventory tracking and in-store tools for staff.

**Bridge Gaps Between Online and In-Store Demand** — Unified inventory management systems can help retailers keep the products they need in stock, where they need them, when customers want them. When inventory systems are disconnected, a retailer might sell out of an item at its physical stores, while the same item sits in bulk in a fulfillment warehouse, ready to ship for nonexistent online orders. But with connected systems, retailers gain inventory and supply chain predictability.

Mobile applications also give managers and employees the ability to help customers order the items they need. While nearly any mobility initiative will rely on widely available “off-the-shelf” mobile apps, such as popular email and file-sharing services, retail is an industry for which purpose-built custom apps are extremely important. Any employee-facing app that ties into a company’s inventory systems will require a large degree of customization. And consumer-facing apps require custom development processes to give shoppers a unique experience that allows them to better interact with a store’s physical layout. According to the International Council of Shopping Centers, nearly half (47 percent) of U.S. adults have between one and five retailer apps on their mobile devices, and one in 10 shoppers have 11 or more such apps installed.

**Line Busting** — With mobile point-of-sale (mPOS) systems, employees can check out shoppers anywhere in the store, a service that improves customer service and shortens lines at the cash wrap (see sidebar, “Mobile Solutions, Mobile Employees”).

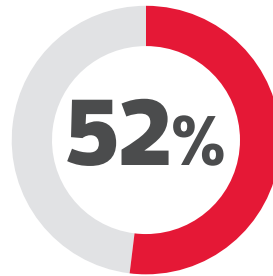
The use of customer data in clienteling processes can increase the quality of these interactions, providing sales staff with information they need to better serve shoppers. The adoption of mobile proximity payment solutions such as Apple Pay, Android Pay (soon to be Google Pay) and Samsung Pay can also speed up lines and improve customer satisfaction.

It is important for retailers to manage mobile devices used by employees with enterprise mobility management (EMM) tools. The level of management and monitoring will depend on employee role, device type and use case. Most retailers will want to be able to track and remotely wipe virtually all of their mobile devices. When employees are equipped with consumer-friendly devices such as iPads, companies will often apply further management controls to prevent workers from using devices inappropriately.

**Endless Aisle** — In-store tablets or kiosks can give customers access to virtual catalogs, creating an “endless aisle” that allows shoppers to choose from far more products than could ever be realistically shelved in a physical store.

This feature helps brick-and-mortar retailers compete with online retailers by giving customers more options. It also helps to prevent situations in which customers walk out without making a purchase because a store didn’t have what they were looking for.

**Increased Customer Engagement** — By connecting back-end inventory management solutions to customer-facing technologies, retailers can create a unified, engaging experience for shoppers. With RFID tagging, mobile beacons, digital signage and mobile apps, retailers have everything they need to know the location of all their products and the location of many of their customers — with multiple ways of transmitting messages and deals to shoppers. This is an emerging space, and it’s important



The percentage of retailers that have not yet defined or begun implementing a digital transformation strategy<sup>2</sup>

## Managing Risk in a Connected Environment

In 2016, the Internet of Things Institute named retail stores and databases as one of the “most vulnerable IoT security targets,” lumping the sector in with other sensitive targets such as cars, airplanes and power grids.

This dubious distinction came on the heels of an Atomic Research study that showed the retail industry lagging behind other sectors on IoT security. Only 20 percent of retail IT security professionals expressed confidence that their point-of-sale devices were securely configured, and 34 percent of retail executives were “not confident” that

all devices on their networks were authorized. And yet, an astounding 45 percent of retail executives said they were “not concerned at all” about the security risks associated with IoT devices connected to their networks.



The Internet of Things Institute recommends that retailers — in addition to investing in traditional security technologies such as firewalls, intrusion detection systems, intrusion prevention systems and anti-virus — protect core assets through the use of analytics. Alerts can be set up to warn security professionals of suspicious behavior, such as point-of-sale machines reaching out to the internet.

for retailers to tread carefully, so as to avoid situations in which customers feel put off. While shoppers want a personalized experience that creates value for them, they don't want to feel as though they're constantly being watched. It can be a tricky balance.

**Modernize the Base**

As retailers implement new tools to improve inventory management processes, it may also be necessary to upgrade or refresh back-end infrastructure and other IT equipment. This is a good opportunity to take a close look at existing investments in networking, the data center, wireless and the cloud. Retailers can then determine whether they need additional resources in servers and storage, virtualization, wide area network optimization, wireless access points or cloud deployments (including Infrastructure as a Service and Software as a Service).

It may also be time for some retailers to level up their mobility environments. Although many organizations have adopted mobile strategies, these are often rudimentary, and there are opportunities to move from basic productivity to actual innovation. In many cases, retailers have created a mobile consumer experience, but lag behind in business-to-employee applications and workflows. Other retailers lag in the use of collaboration software and staff productivity tools. Although retailers understandably target most of their IT purchases at programs that will improve the customer experience, the truth is that better employees *do* improve the customer experience, and they are worth investing in.

**Solutions Support Data Analytics and Strengthen Security**

Data analytics plays a large role in any digital transformation strategy. Data-driven insights empower retailers to drive greater efficiencies, deliver a superior customer experience, optimize investments and identify new revenue streams. In particular, analytics are a necessary and important tool for inventory tracking and forecasting, which can help retailers ensure their shelves are stocked with the right products, in the

right amounts. In some cases, inventory forecasting is relatively straightforward: Snowstorms help managers predict an uptick in shovel sales, or a football team's winning season drives demand for branded apparel. But other trends are subtler and, often, will be discovered only through the sophisticated use of data analytics programs. For short-term analytics projects, the public cloud gives organizations a way to quickly scale up resources for temporary use.

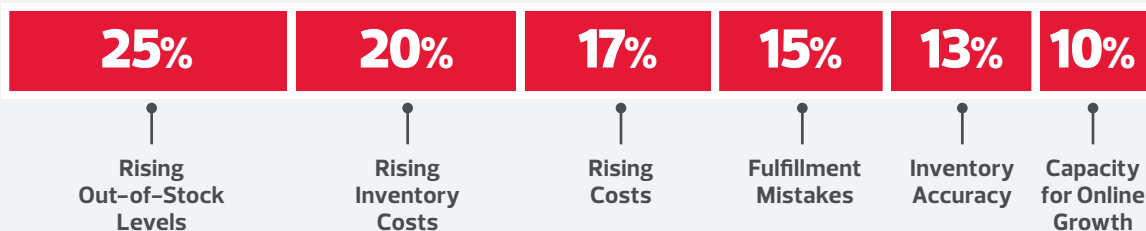
Predictive analytics for inventory management can have a significant impact that extends well past saving the occasional lost sale. Often, ineffective inventory management practices lead to a cycle that completely skews retailers' concept of supply and demand for their products. For example, if a retailer fails to keep an item in stock, shoppers will begin going to a competitor for that product. That leads the retailer to believe that demand for the product has shrunk, when in actuality, customers are simply fulfilling that demand elsewhere. Studies show that predictive analytics for inventory management can lower inventory costs by 25 to 40 percent, increase sales by 11 to 20 percent and boost turnover by up to 3.5 times.

Most retailers already have much of the data they need to improve inventory forecasting. Rarely, however, is this data unified and visible across the organization. Instead, it is likely confined to complicated spreadsheets owned by one specific "channel" within the organization. When information is disconnected, it is difficult to use data meaningfully, and retailers are left to make educated guesses about inventory demand. By consolidating in-store and online data into a single analytics system, retailers can uncover the hidden context around transaction trends and arrive at actionable insights. Unstructured data from social media interactions and customer service call logs can also deliver insights. The best predictive analytics programs don't remove human actors from the decision-making process, but rather give people the information they need to make better assessments.

In addition to assisting with inventory management, Big Data solutions can help retailers devise new ways to find customers, retain customers, make more money per transaction and make

**What's the Problem?**

Retail CEOs listed the following top areas of concern in the supply chain in a survey from PwC.<sup>3</sup>



Source: <sup>3</sup>PwC, "CEO Viewpoint 2017: The Transformation of Retail," February 2017

operations more efficient. As IoT technologies become more pervasive, Big Data will play an increasingly important role in retailers' bottom lines.

However, as retailers embrace IoT solutions, connected devices and data analytics solutions, it is essential that they enact adequate security controls to safeguard sensitive data. As with all industries, organizations must take steps to protect proprietary business information. But retailers are particularly vulnerable to hacks on the payment information of their customers, which can result in substantial financial losses to companies — not to mention a huge hit to reputation. According to the Ponemon Institute's 2017 "Cost of Data Breach" study,

the global average cost of a data breach is \$3.62 million, with the average cost for each lost or stolen record containing sensitive and confidential information sitting at \$141.

To protect their environments, retailers should implement and refine layered security strategies that protect data at all points of potential vulnerability. They should also conduct regular risk assessments and perform simulations that put their security systems to the test. These help to ensure that cybersecurity efforts are keeping pace with the ever-evolving threat environment. Among other tools, EMM solutions can help retailers not only manage applications and software, but also address mobile security concerns.

### CDW: A Retail Partner that Gets IT

With decades of experience meeting the unique IT needs of the retail sector, CDW provides end-to-end, scalable technology solutions for retail and hospitality businesses of all sizes.

**Retail IT Security** — With a growing number of hackers attempting to access sensitive payment data, CDW can help retailers examine their systems to identify and rectify security vulnerabilities.

**Digital Signage and Displays** — From digital screens running promotions to self-serve kiosks loaded with product information, CDW's solution architects can help retailers select the right digital hardware and software to help them meet their goals, configure custom displays and support back-end infrastructure.

**Point of Sale** — CDW can help retailers select and implement individual mobile point-of-sale (mPOS) solutions, integrated POS and inventory solutions for multilocation businesses and everything in between.

**Retail Mobility** — With the help of CDW's solution architects, retailers can modernize the in-store experience with mobility strategies that incorporate mobile devices and apps, beacon technologies and wireless networks.

**IoT and Business Analytics** — Emerging IoT solutions collect and create data that helps retailers deliver better customer experiences and drive sales. CDW can help retailers implement tools to collect and analyze data on customer service interactions, browsing and purchasing behavior, social media conversations and more.

### The CDW Approach



#### ASSESS

Evaluate business objectives, technology environments and processes; identify opportunities for performance improvements and cost savings.



#### DESIGN

Recommend relevant technologies and services, document technical architecture, deployment plans, "measures of success," budgets and timelines.



#### MANAGE

Proactively monitor systems to ensure technology is running as intended and provide support when and how you need it.



#### DEPLOY

Assist with product fulfillment, configuration, broad-scale implementation, integration and training.

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