

Retail Self-Scanning Tools: When, Where & How to Implement for Success



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Your Self-Scanning Playbook

More retailers around the globe are implementing self-scanning tools across their store networks to bypass one of shopping's biggest pain points: the checkout line. Learn where—and when—this technology makes the most sense for you and your customers.

The entire brick-and-mortar retail industry is undergoing seismic shifts driven by digital enablement and intense online competition. Grocery stores are not immune! Smaller grocers are faced with the ongoing challenges coming from national chains with deeper pockets for new strategic technology deployments, on top of new competition from non-traditional grocery retailers like Amazon. The entire retail industry is grappling with how to create a better in-store experience while simultaneously enhancing the digital experience.

The fact of the matter is, digital enablement is not an either-or proposition. Grocers may see themselves faced with a tough choice:

- Adopt new technology to reimagine the in-store experience
OR
- Succumb to online retailers using their digital powers to minimize customers' reliance on the physical store.

This thinking will not cut it. Instead, grocers must view the coming years through an “and-and” lens: they need to invest in technologies in-store to keep up with the competition and make daily shopping experiences more convenient, faster and more rewarding (i.e. through loyalty programs, frictionless shopping and personalized discounts). AND at the same time, they must view their online presence as a vital touchpoint for their customers.

The winners will be the ones that are able to smartly combine their physical and digital presence into one holistic ecosystem that empowers shoppers to conduct their journeys however they see fit.



Consumer Behavior Has Changed for Good

Today, consumers conduct price comparisons on their smartphones in the detergent aisle. They auto-refill purchases of their favorite cereal through online retailers. They dabble in meal-kit delivery. They set the bar for their physical shopping experiences based on their most recent (seamless and fast) digital shopping experience.

A hybrid strategy, focused on using technology to bridge physical and digital channels, will position your retail network for the changes on the horizon. That could mean offering customers the ability to create a shopping list through your store’s app, with coupons automatically identified and personalized suggestions generated based on their list. It could mean implementing click-and-collect so their groceries are ready and waiting for them, or empowering them with self-scanning tools in-store that make the shopping process more streamlined and quick.

In this whitepaper, we’ll dive into the details of personal self-scanning, and outline how you can use this transformational tool to enhance your consumers’ experiences and streamline operations across your entire store network

LONG CHECKOUT TIME IS A DEAL-BREAKER

A 2018 study from Forrester Research¹ and Digimarc revealed just how highly consumers value short lines. Their research found that after location and price, checkout (the line length and experience) is the factor that is most likely to prompt consumers to head somewhere else for groceries (see Fig. 1A). In fact, when they asked shoppers how satisfied they were with 15 various components of the shopping experience, line length was the least chosen answer (see Fig. 1B)!

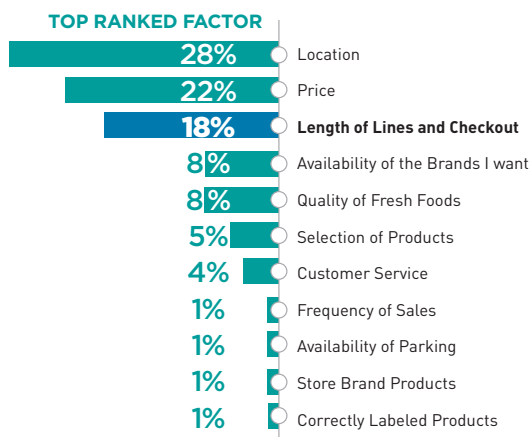
Retailers and technology providers have designed and implemented many solutions to the problem of long lines, from self-checkout POS to order-and-pay-ahead loyalty apps.

MARKET ADOPTION FOR SELF-SCANNING IS GROWING FAST

A growing number of retailers have discovered yet another alternative: self-scanning. Where **self-checkout** POS offers customers the ability to check-out on their own, **self-scanning** offers customers even more freedom, enabling them to scan their products as they shop, bag them immediately and avoid the checkout line entirely. In the U.S., grocers are ramping up self-scanning capabilities (from 8.5% availability in 2017 to 24.3% in 2018²), but how much do you know about the technology? What are the benefits to you, and your consumers?

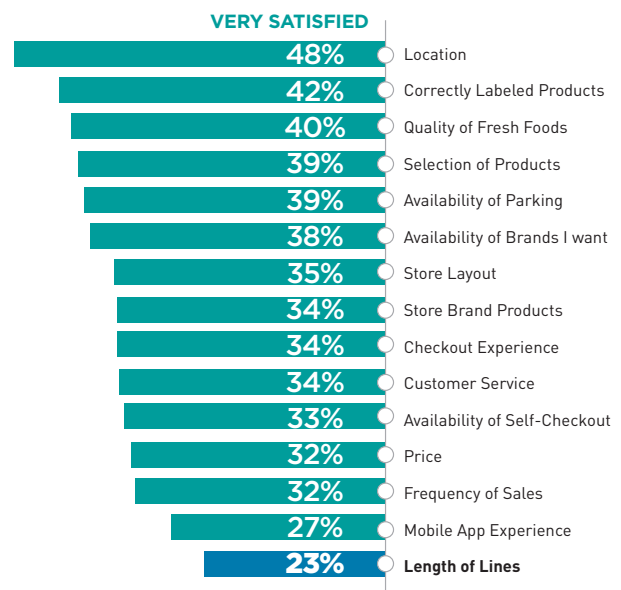
Nielsen’s latest global research on consumer shopping behavior³ identified developed markets as the leaders in implementing self-scanning technology (see Fig. 2).

FIG. 1A
WHAT FACTORS OF THE SHOPPING EXPERIENCE WOULD PROMPT YOU TO SHOP ELSEWHERE FOR YOUR GROCERIES?



Base: 1,000 US consumers who have shopped for groceries in the past two weeks.
Source: A commissioned study conducted by Forrester Consulting on behalf of Digimarc, April 2018

FIG. 1B
HOW SATISFIED ARE YOU WITH EACH OF THE FOLLOWING PARTS OF YOUR SHOPPING EXPERIENCE?

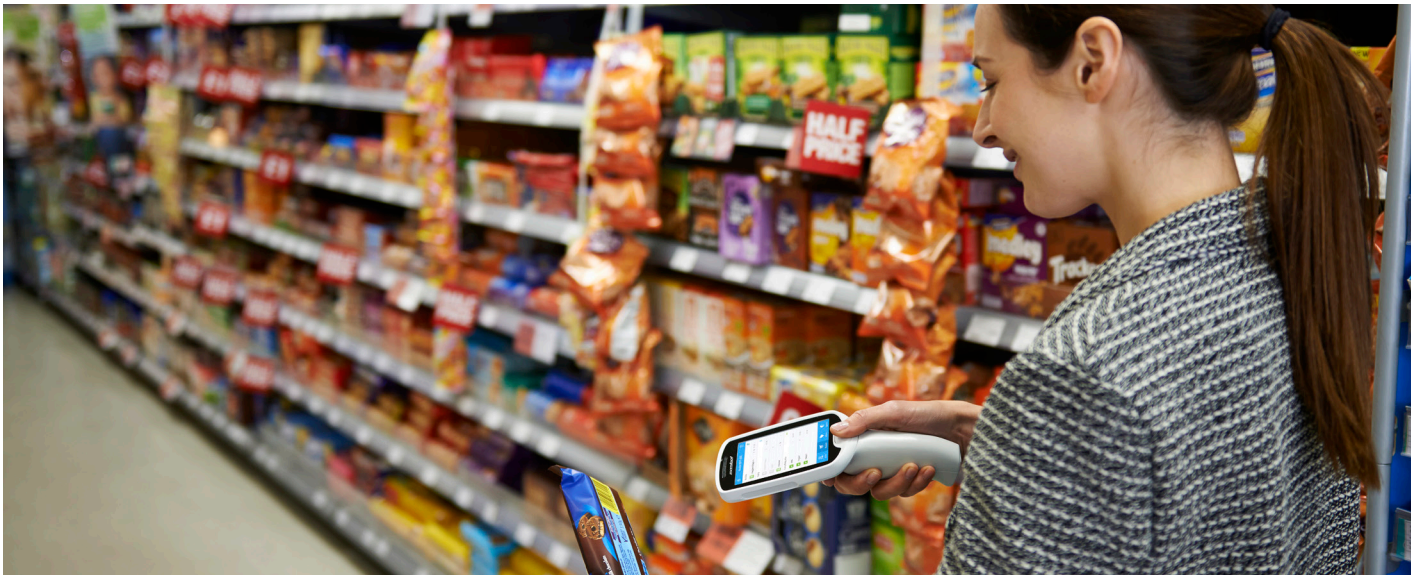


Base: 1,000 US consumers who have shopped for groceries in the past two weeks.
Note: Respondents who selected “Don’t know” have been removed.
Source: A commissioned study conducted by Forrester Consulting on behalf of Digimarc, April 2018

¹ Commissioned study conducted by Forrester Consulting on behalf of Digimarc, April, 2018

² Progressive Grocer’s 85th Annual Report of the Grocery Industry, 2018

³ What’s In-Store for Online Grocery Shopping: Omnichannel Strategies to Reach Crossover Shoppers, Nielsen, 2017



Offer a More Convenient, Personalized Shopping Experience

In a self-scanning scenario, customers use a store-provided, hand-held portable device or an app (downloaded to their phone) to scan purchases while shopping the aisles, bagging items in their cart as they go. Before departure, merchandise is quickly paid for at a central location through a few simple steps.

For retailers looking to optimize their store configurations, self-scanning offers the ultimate in compact technology. A slim wall of scanners situated at the entrance, or offering self-scanning through a customer’s smartphone (a “bring your own device” or “BYOD” strategy), is dramatically more streamlined than a checkout station or kiosk.

In addition to reducing labor costs and freeing staff to perform other functions, self-scanning offers more convenience by expediting checkout. It facilitates processing of large orders, since consumers can bag their items while shopping. Plus, customers feel empowered because they can track spending along the way.

Self-scanning meets the emerging retail imperatives of personalizing the shopping experience and enabling shoppers to navigate their shopping journey the way they want to do it. Self-scanners can be linked to a retailer’s loyalty program and CRM database, so that customers can check prices, locate products, view product videos

and even summon sales assistance. They can access information unavailable on product labels, like allergy interactions and traceability data. And they can even check online availability of out-of-stock products, then immediately place their order for delivery at home or in-store.

In the U.S., Kroger (multiple divisions), Giant Eagle and BJ’s Wholesale Club have all introduced self-scanning technology. According to new research from IHL, U.S. retailers recognize the value of self-scanning. The study found that 23% of U.S. retailers plan to implement self-scanning over the next year, with an additional 43% planning the implementation within the next three years⁴.

PERCENTAGE OF CONSUMERS WHO SAY THEY’RE ALREADY USING A HAND-HELD STORE SCANNER TO PURCHASE PRODUCTS AS THEY SHOP



FIG. 2

⁴ Stored Advantage -- Why Leading Retailers are Doubling Down on Stores, 2019 Retail Experience Market Study, IHL 2019
 Graph Source: What’s In-Store for Online Grocery Shopping: Omnichannel Strategies to Reach Crossover Shoppers, Nielsen, 2017



Gain a Better Understanding of How Your Customers Shop

Modern self-scanning technology enables retailers to offer promotions in real time, while their customers are shopping in their store. Beacons and other in-store positioning technologies like VLC (Visible Light Communication) can facilitate and support these new capabilities by identifying where customers are at in the store. Through AI-enabled handheld scanners, retailers can gather data for analytical insights, with AI continually “learning” and building on its knowledge regarding shopper behavior, dwell times and purchasing patterns. Retailers can even build more reliable store planograms in real time by combining scanning data with indoor positioning technology, eliminating the need to manually change planograms.

This type of future-focused technology integration is catching on. In 2018, 41% of grocers said they favor analytics-driven decision making, up from 27% in 2017⁵. And they’re realizing the power of personalization, with 38% of grocers saying they are working on developing personalized marketing campaigns, up from 21% in 2017.

“Understanding how shoppers travel throughout the store is valuable in determining display locations, identifying ideal category/aisle flow and designing new stores to best reflect how shoppers prefer shopping.”

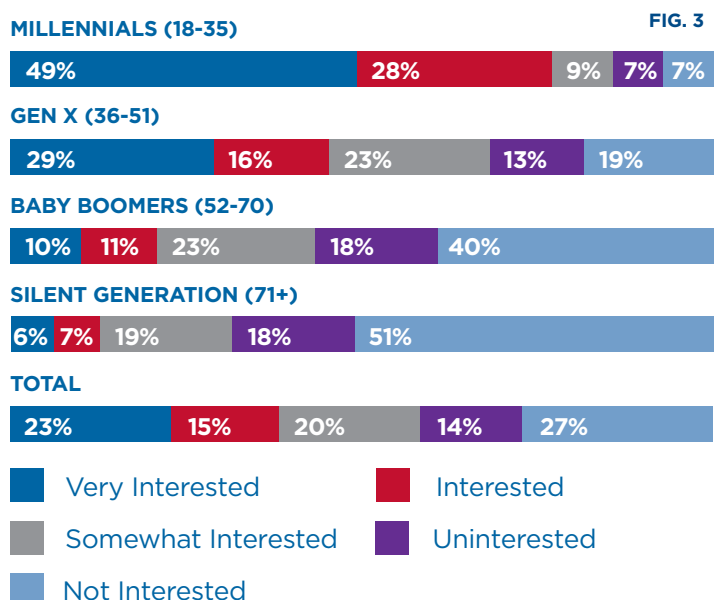
— Jon Hauptman, Senior Director of Analytics Solutions, Inmar Analytics⁶

HIGHER RINGS, BIGGER BASKETS

Self-scanning appeals to people seeking a personalized shopping experience, and who like feeling in control and using technology. Recent research reveals that nearly 60% of U.S. grocery store shoppers are interested in using scan-and-go technology in-store⁷. Fig. 3 explores the demographic breakdown in more detail.

US INTERNET USERS’ LEVEL OF INTEREST IN SCAN AND GO* TECHNOLOGY, BY GENERATION, MARCH 2017

% of respondents



Graph Note: Numbers may not add up to 100% due to rounding;

Graph Source: Acosta, “Bricks & Clicks: Understanding the Omni Channel Landscape,” 2017

⁵ 3rd Annual Grocery Tech Trends Study 2018, Progressive Grocer

⁶ Five Ways Mobile Scan and Pay Benefits Grocers Beyond the Checkout Line, Progressive Grocer

⁷ Bricks & Clicks—Understanding the Omni Channel Landscape, Acosta, 2017

Self-Scanning Boosts Top-Line Sales

The proof is in the scans. A long-time user, Italy-based Conrad Centro Nord, installed self-scanning in 2004 and has experienced larger baskets and a 10% overall sales increase. About 10% of transactions are self-scanned. ICA, a Swedish grocery network with 1,300 stores, began using self-scanning in 2002 and today nearly half of their customers in key locations rely on the technology for their shopping trips. Self-scanning has been shown to create checkout times that are up to five times faster, and it introduces new up-sell and cross-sell opportunities in real time, driving further top-line growth of up to 25%. With fewer employees required at checkout, stores can restructure the way they allocate staff through the store, enabling them to have more staff on hand for real-time interactions with customers throughout the store.

ADDED VALUE FOR CLICK-AND-COLLECT SHOPPERS

Dan Donovan, a spokesperson for Giant Eagle, believes self-scanning may be attractive to click-and-collect shoppers. "A customer who prefers Curbside Express may find Scan Pay & Go useful for fill-in trips. The savviest customers will use various technology-driven services interchangeably."

To use self-scanning, Giant Eagle customers scan their loyalty card, grab their grocery bags at the store's entrance and begin scanning and bagging items as they shop. When they've completed their shopping trip, they scan a barcode at a dedicated Scan Pay & Go checkout (or at any register). The register walks them through the payment. Paper coupons can be redeemed and all forms of tender are accepted. Associates assist in processing age-restricted items. The process is similar for many retailers using self-scanning.

"The 'traditional' customer experience no longer exists. The challenge is to provide solutions for all the ways customers want to interact. Scan Pay & Go has quickly become popular for those interested in using technology to take added control."

— Dan Donovan,
Spokesperson for Giant Eagle⁹

SELF-SCANNING OPTIONS: DIFFERENT SCENARIOS CALL FOR DIFFERENT TECHNOLOGY

While consumers may use their smartphone to pay for a quick snack and a cup of coffee, a store-provided scanning device offers more convenience during longer, more elaborate shopping trips involving many different items. Ultimately, retailers must give customers the ability to choose how they shop. Flexible solutions that offer every flavor of scanning and checkout are critical to enhancing the consumer experience and driving long-term loyalty.

What are some of the considerations when implementing self-scanning solutions in a store?

1. ADOPTION

Many people love their smartphones and want to use them for everything. As a retailer, providing self-scanning functionality in your loyalty app can be a non-intrusive way to introduce self-scanning to consumers and let them experiment with it.

2. TECHNOLOGY INTEGRATION

Can your retail IT support multiple smartphone models and platforms? Store-provided hand scanners circumvent the challenge of integrating your services with the myriad devices consumers are using.

3. CYBER-SECURITY

While large retailers may have the capabilities to securely manage a scan-and-go smartphone app, it can be problematic for smaller retailers with limited technology infrastructure. Wi-Fi-enabled, store-provided devices create fewer problems, and eliminate the potential for customers to assume the store is to blame if their smartphone malfunctions or picks up a virus.

4. USAGE

Store-provided scanning tools are kept on docking stages, so customers always have access to a fully-charged device. A smartphone, on the other hand, may not always be fully charged, and customers may find they want their phones free for talking or texting while they're shopping. Customers may be surprised by data charges from their phone provider, depending on their carrier and plan, which they may blame on the retailer.

5. STAFF ENABLEMENT

Store-provided self-scanners can double as PFA units for associates, which offsets the cost of implementation. Plus, self-scanners offer an impressive variety of features and functions for both staff and customers, from looking up inventory, click-and-collect order scanning and invoicing to item location, assisted selling and warehouse management. Other functions include price verification/updates, store receiving and voice-directed applications.

⁸ Bricks & Clicks—Understanding the Omni Channel Landscape, Acosta, 2017

⁹ Giant Eagle launches Scan Pay & Go service, Supermarket News, 2018

Methods for Reducing Theft

Regardless if you opt for store-provided scanners, a smartphone self-scanning app or both, shrinkage will be a topic to pay attention to when introducing self-checkout solutions in a store.

MAKE IT PERSONAL

Self-scanning platforms involving store-provided devices often require that customers access the retailer's loyalty program or log on and identify themselves. This makes self-scanning less shrink-prone than stationary self-checkout because people are not as likely to steal if retailers know their identity. When self-scanning is completed, shoppers usually pay in designated, associate-monitored locations, then return devices to docking stations, signalling the transaction's completion.

RETAIN A HUMAN TOUCH

Employees who monitor self-scanning checkout areas are often trained to make eye contact and verbally interact with shoppers in a non-confrontational way. This further deters theft because consumers know they are being observed. Security cameras and random audits can augment this. Some retailers also require that shoppers' first self-scanning trips be audited.

APPLY PATTERN ANALYTICS

In addition, audit algorithms can be developed and refined to track shopping and behavior patterns over multiple shopping trips. Pattern breaks signal associates to conduct audits.

Timothy Campbell, senior analyst at Kantar Consulting, said banks and credit card companies use similar algorithmic systems to flag transactions that are "out of the ordinary" or inconsistent with customer behavior.

For supermarkets, audit signals could include breaks in such variables as presence of age-restricted products, average number of items scanned hourly, average shopping time, average number of voided items or history of failed re-scans. Dwell time in high value areas without scanning or presence of high-ticket items could also raise flags.



Don't Just Shorten the Line. Avoid it Altogether.

Consumer behavior has changed. Savvy retailers are already deep in the process of developing and implementing new ways of shopping, including more choices in channels, pickup options and payments. As younger generations, weaned on technology, come of age, digital enablement will be a critical factor for success—moving from a “nice to have” to table-stakes.

Self-checkout has also undergone a revolution, to the benefit of both consumers and retailers, who now have more options than ever. Embracing the full gamut of options, and making targeted, strategic implementations based on data about stores and consumers, will ensure retailers are prepared to offer a modern, seamless shopping experience, and give consumers the choices they want, how, where and when they want to make their purchases.

Without the line!



About Diebold Nixdorf

Diebold Nixdorf is a world leader in enabling connected commerce for millions of consumers each day across the financial and retail industries. Its software-defined solutions bridge the physical and digital worlds of cash and consumer transactions conveniently, securely and efficiently.

As an innovation partner for nearly all of the world's top 100 financial institutions and a majority of the top 25 global retailers, Diebold Nixdorf delivers unparalleled services and technology that are essential to evolve in an 'always on' and changing consumer landscape.

The company has a presence in more than 130 countries with approximately 23,000 employees worldwide.

About Zebra Technologies

Zebra Technologies empowers the front line of business in retail/ecommerce, manufacturing, transportation and logistics, healthcare and other industries to achieve a performance edge. With more than 10,000 partners across 100 countries, we deliver industry-tailored, end-to-end solutions that intelligently connect people, assets and data to help our customers make business-critical decisions. Our market-leading solutions elevate the shopping experience, track and manage inventory as well as improve supply chain efficiency and patient care. Ranked on Forbes' list of America's Best Employers for the last three years, Zebra helps our customers capture their edge.



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