



The Cashierless Convenience Store: Fad or Future?

Amazon, Walmart and Kroger are a few companies automating the checkout process, and experts believe c-store operators should be paying attention By Tammy Mastroberte

AMAZON MADE HEADLINES RECENTLY with the opening of its Amazon Go store, featuring a grab-and-go concept with no checkout or cashiers. The entire store is run on proprietary technology, which the company calls “Just Walk Out Technology,” as it automatically detects products taken off and returned to the shelves, and adds them into a virtual cart for automatic checkout using the Amazon Go app on the customer’s phone. The system is also using cameras and facial recognition technology.

“The whole concept of the cashierless convenience store is about convenience to the customer, and what is our most precious asset as an individual — our time,” said Ken Gold, CEO of Skilken Gold, a real estate development company based in Columbus, Ohio. “Companies are trying to figure out what the next gimmick or differentiator is to bring attention to their brand and provide the most convenience to consumers.”

While Amazon has not revealed the exact technology being used in the Amazon Go store (the company did confirm it’s not RFID), experts believe its system utilizes artificial intelligence with cameras and facial recognition, in conjunction with sensors

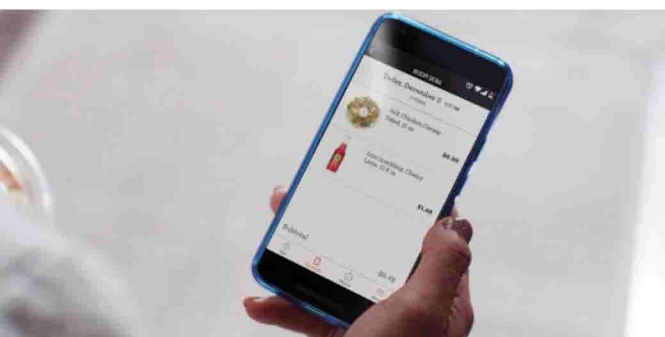
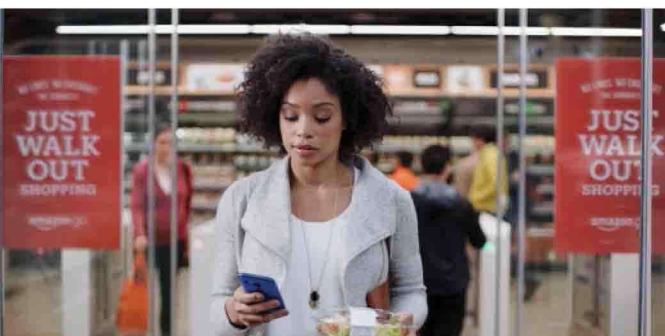
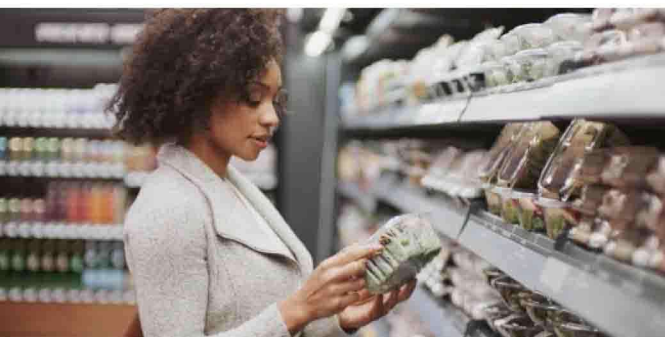
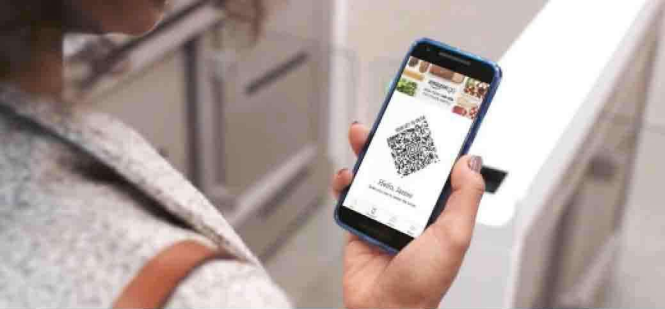
on the shelves and the mobile app. Customers are also required to have an Amazon account.

VideoMining Corp., a company based in State College, Pa., that offers in-store behavior analytics for consumer packaged goods manufacturers and retailers, uses a similar technology platform with cameras and sensors to track where people move throughout a store, according to Jeff Hershey, VideoMining’s executive vice president of strategy and development.

“It looks like the use of computer vision similar to what we do and using multiple sensors — either weight-sensing or pressure-sensing shelves,” he noted. “The camera takes inputs from the top down and sideways to determine what was purchased or what you put back. When you come in, you check in with your phone and build a virtual basket as you go through the store, and it probably knows a person has left based on location-based technology.”

Some experts are referring to the technology as a “disruptor” that will cause others to provide a similar service. Both Walmart and Kroger announced cashierless self-checkout concepts to be rolled out this year. Walmart plans to bring its Mobile Express Scan & Go, which uses a mobile app, to more than 100 stores, while Kroger is rolling out its Scan & Bag technology, which uses an app or handheld scanner, to 400 stores in 2018.

These concepts, however, would not be easily incorporated



The entire Amazon Go store is run on proprietary “Just Walk Out Technology,” which automatically detects products taken off and returned to the shelves, and adds them into a virtual cart for automatic checkout using the Amazon Go app on the customer’s phone.

into the convenience store environment, according to Rob Gallo, chief marketing officer at Impact 21, a petroleum and convenience consulting company based in Lexington, Ky.

“Given the small basket size and short duration of a c-store shopping trip, I don’t think handheld scanners are the answer,” said Gallo, noting also that with c-stores, there’s the issue of tobacco and made-to-order foodservice where people will need to interact with someone.

“Nothing I have read would indicate [Amazon Go] will carry cigarettes, and that is a destination driver of the c-store industry and a significant gross margin contributor,” added Steven Montgomery, president of b2b Solutions, a c-store consulting company based in Lake Forest, Ill.

Montgomery also clarified that Amazon Go is not without employees; it is just without registers. “The alcoholic beverage section does have associates checking IDs,” he noted.

Accuracy & Loss

Leading up to the opening of the first Amazon Go store in Seattle, Amazon did acknowledge some delays in the launch because of technology and accuracy issues. The Amazon Go app currently works with the latest versions of Apple and Android phones, and the company initially had issues with the app’s ability to handle larger volumes of traffic, according to Montgomery.

“As far as accuracy, Amazon has acknowledged it isn’t perfect,” echoed Gallo. “That said, I would imagine the shrink at Amazon Go would be less than a typical convenience store.”

Amazon had the Seattle store in testing with employees for a year, and now that it’s open to the public, there are reports the system is missing items in a customer’s cart — only capturing seven out of eight, said VideoMining’s Hershey. While he doesn’t think the technology will work 100 percent of the time, he also doesn’t believe Amazon is worried about it.

“I think Amazon is willing to accept some breakage or inaccuracy. Small losses will be outweighed by the fact they don’t need so many people running the store,” he explained.

What C-stores Need to Know

Now that Amazon Go has launched, and other retailers are offering their own versions of cashierless checkout, should c-store operators be concerned and looking for their own version?

One of the benefits could be reduced labor costs if cashiers are not needed, but employees are still needed in the stores — even at Amazon Go.

“I do believe the concept has legs, but note: Even though Amazon Go does not have cashiers, it still has plenty of employees,” said Gallo of Skilken Gold. “Companies should be deploying technology that frees up people to perform more value-added tasks.”

Even in a self-checkout environment, someone must be available for age-restricted items and to assist with any issues, Montgomery agreed.

Additionally, it has long been a focus of convenience stores to get



Amazon Go executives recently shared at the ShopTalk retail industry event that the most popular grab-and-go item is the store's chicken sandwich.

consumers from the fuel pump into the store, and they often use the checkout area to advertise impulse buys, Impact 21's Gold noted. "In a way, it goes against the checkout concept with impulse purchases such as gum, candy bars and more, which are highly profitable items," Gold said.

It also changes the way c-stores provide customer service. "As consumers, we need customer service. We become loyal to a location and brand because of customer service," he added. "Publix continues to be No. 1 in customer service, but if they start eliminating employees, they will no longer be No. 1."

The setup used by Amazon Go also won't necessarily translate to the c-store and larger format environment because it would become expensive and accuracy would be more of an issue.

This is why Walmart and Kroger are creating their own versions.

"Scalability is a concern if this technology was going to be employed in larger stores," said Gallo. "The number of sensors and cameras necessary to make the process seamless in a store the size of Whole Foods — cost and accuracy are likely to become a big challenge."

Still, experts believe adoption of the cashierless checkout will increase over time, especially as labor costs continue to rise and companies look to replace certain labor functions with technology, including self-checkout, Gallo explained.

"Lowering overhead costs can keep retailers more competitive on price. Managed properly in the right locations, self-checkout can get customers out of the store faster," he said, advising that c-store operators should consider this for the future as they look to innovate and progress.

"Convenience stores should be doing more than watching," Gallo concluded. "They should be thinking about the evolution of the channel and how they can continue to 'own' convenience. If they are not willing to rethink the business, others will." **CSN**

"Convenience stores should be doing more than watching. They should be thinking about the evolution of the channel and how they can continue to 'own' convenience. If they are not willing to rethink the business, others will."

— Rob Gallo, Impact 21



Amazon is expected to announce plans soon for additional Amazon Go stores.