



Retail IoT: AI firm trials autonomous smartphone checkouts

By **Nicholas Fearn** - March 21, 2018

American artificial intelligence (AI) firm AVA Retail has successfully completed the first trial of its autonomous checkout system.

The SmoothShop system allows customers to scan and pay for items with their smartphones in retail aisles. On finishing, the amounts owed by shoppers are deducted from their connected accounts with a click.

The technology is targeted at high-street retailers and smaller merchants.

Frictionless shopping

SmoothShop is designed to be a quick and convenient system for both customers and retailers. The checkout doesn't rely on a third-party app or turnstile – AVA said "shoppers

simply enter the store with their phone”.

However, the company explained that it does offer additional software and hardware for stores that want to take extra security precautions. The system is powered by “deep learning, computer vision, and sensor fusion technologies”, added the firm.

The news comes just days after UK supermarket chain Co-Op unveiled its own smartphone-based checkout service to slash queuing times.

AVA announced its frictionless checkout system in August 2016, but didn’t start trialling the technology until September 2017. Since then, it has been testing it in co-working space/start-up community WeWork’s food and beverage kiosks.

AVA has collaborated with Mastercard to bring the latter’s digital payment and security services to AVA’s cashier technology. Mastercard is on a mission to “provide comprehensive solutions for retailers across multiple categories”, explained AVA.

In the UK, the Co-op’s app is also built on Mastercard’s Masterpass secure mobile payments technology.

Stephane Wyper, senior vice president of new commerce partnerships at Mastercard, said, “Mastercard continues to engage with innovative companies that are developing technologies that can transform the in-store retail experience to make the consumer journey as frictionless as possible.

“This collaboration is a great example of how we can couple our rich set of payment, security, and analytic capabilities with AVA’s retail IoT assets to help retailers deploy unique experiences today,” he said.

Transforming retail

As Wyper suggested, AVA has also developed an analytics solution in partnership with Mastercard, to help retailers gain better insight into their customers’ needs and behaviours.

So far, AVA claims to have processed more than 30 million customer journeys, 750 million product interactions, and 20 million checkouts throughout four continents.

Atul Hirpara, chief executive officer of AVA, explained that firm is helping stores accelerate their digital transformation plans and tap into emerging technologies.

“[Retailers are using] IoT sensors to digitally transform physical retail locations, creating digital footprints of in-store shoppers, store associates, and store inventory that was not available before,” he said.

By tapping into IoT data, retailers can “create better shopper experiences, drive staffing efficiency, and higher sales conversion”, he added.

Internet of Business says

Mastercard’s strategy to provide the underlying technology for frictionless shopping is becoming clear, and we can expect more announcements in this space in the months ahead. The tipping point will come when the biggest retailers get onboard with smartphone shopping, with many having already deployed automated self-checkouts.

As we reported in our story on the Co-op’s similar programme, frictionless shopping has become critically important to rising numbers of customers. Many use their smartphones for shopping lists, while others compare goods online along with in-store prices from other retailers in the aisles.

Now both consumers and retailers want in-store shopping to be as swift and hassle-free as ordering goods online, but with the added benefit of bricks rather than clicks: instant access to goods.

The result could be greater loyalty to the brands that deploy these technologies – the Holy Grail for all retailers, especially in the squeezed mid-market – and a more efficiently run business.

However, not all retail environments will be appropriate for the instant gratification approach: it will be a ‘horses for courses’ market, with many shops – particularly in higher-end goods and fashion – differentiating themselves by their quality of personal service, as well as their goods.

In the UK, the Co-op has said that it has seen the use of cash in its food stores diminish rapidly as alternative payment methods have become more popular. Cash transactions have fallen by more than one fifth over the last five years, and by 15 percent in the past 18 months alone, it said.

Doubtless competitors will be watching to see how secure this new system is, what the impacts are on shopper numbers, supply chain/ordering processes, and the bottom line – and whether the system is used or abused.