Background

New retailing formats such as Amazon Go are seen by traditional bricks & mortar retailers to have 'cracked the code' with their near frictionless shopping experience. In response, they too are seeking to explore new ways to reduce friction during shopper journeys in their environment. To date, their efforts have focused primarily on self-checkout, where the shopper can scan and pay at a POS terminal once they have selected all the items they wish to buy (Fixed Self-Checkout). Alternatively, they can scan the items with a store device or their own smartphone as they select them, and then pay either at the end of the journey at a fixed POS terminal or in-aisle via a bespoke App (Mobile Self-Checkout).

Retailers, especially those in the Grocery, Home Improvement, Drug and Cash & Carry sectors would like to go further, making self-checkouts faster, simpler, as free as possible from these points of friction, and at the same time, ensure all the items selected are scanned and then paid for by the consumer. This is the essence of the ECR Innovation Challenge.

Challenge Objectives and Use Cases

The ECR Frictionless Self-Checkout Innovation Challenge, in collaboration with Co:cubed, seeks to connect via a unique speed dating experience, entrepreneurs, start-up companies and innovative organisations with those accountable for self-checkout at leading retailers in Europe, such as Tesco, Carrefour, Ahold Delhaize, Metro, Lidl, etc.

Co:cubed will lead the global search and just 12 companies will be short-listed and invited to participate in the event in London on February 11, 2020. Afterwards there will also be an informal networking evening to enable attendees to continue to share their knowledge, ideas and experiences.

What retailers are looking for are new design and technology-based interventions that can help to address the following issues:

1. Increase the use by consumers of self-checkout, with some retailers aiming to have 85% of all their transactions processed through self-checkouts in the near future (many are already at 50% plus).
2. Improve the accuracy of the scanning process – research by ECR suggests that non-scans, missed scans, walkaways and bar code switching can significantly increase retail losses. For Fixed Self-checkouts, it is calculated that every 1% of transactions (by value) increase shrink by 1 basis point. For mobile self-checkouts, the scan rate failures are thought to be even greater, with every 1% of transactions (by value) increasing shrink by perhaps as much as 10 basis points.

This initiative will run in parallel with a design innovation challenge, where leading academics in the field of design against crime, and store furniture companies, will compete to win a competition that looks for new innovative ways in which retail space, people and technology can combine to improve use rates and scan accuracy.

The design competition and the speed dating event will be held on the same day: February 11th, 2020 in London.
Known Problems at Self-Checkouts (that limit use rates and generate losses)

- Customers do not know how to use the technology (and some fear it) so they do not use it.
- Customers know how the technology works, but due to issues relating to SCO layout and product design issues, make mistakes.
- Customers deliberately do not scan items through various methods – they leave them in their basket or trolley, they pass them over the scanner etc.
- Customers scan everything but then walk away without paying.
- Customers scan everything correctly but present their card too quickly and not pay, or present a card with no cash in the account/present a stolen/defunct card, either with or without malice.
- Customers can, when presented with promotions such as a Buy One Get One Free promotion only scan one item and not the other, which will corrupt store inventory files, potentially leading to out of stocks and give the impression of additional retail losses.
- Customers can deliberately use pre-printed/lower price barcodes on higher priced products.
- Customers can deliberately or by mistake confuse a higher price item they need to ‘look up’ on a system menu for a less expensive item e.g. identifying a quantity of a higher priced organic vegetable as a non-organic and cheaper variety, or say a chocolate croissant for a plain croissant.
- Customers can select multiple variants of the same brand, for example tins of cat food, and then scan one of the items multiple times. While this may speed up the scanning process for the consumer, it can lead to corruption of store stock records where one variety has been scanned multiple times to represent a range of varieties.
- Customers can present coupons and vouchers multiple times in contravention of the rules and conditions of use.

Key Questions [for the start-ups]

- How relevant is your technology across the different retail formats? Would it be more relevant in smaller footprint stores, think Tesco Express, or larger ones, think a Carrefour hypermarket?
- To what extent does your design/technology meet the competing demands of customer service, increased participation and improved scan accuracy?
- In any possible early stage testing or research with customers, what results, feedback, comments, suggestions have been shared?
- Are there any privacy, GDPR or data security implications or considerations that need to be factored in?
- How could retailers who have an interest in partnering with you, get started? Would you support an in-store trial?

About the ECR Community Shrinkage & On-shelf Availability Group

The Shrinkage & On-shelf Availability Group is part of ECR Community, a voluntary and collaborative retailer-manufacturer platform with a mission to ‘fulfil consumer wishes better, faster and at less cost’. Over the last 20 years, the Group has acted as an independent think tank focused on creating imaginative new ways to better manage the problems of loss and on-shelf availability across the retail industry. Championing the idea of Sell More and Lose Less, the Group is open for any retailer and manufacturer to join. For further information: http://ecr-shrink-group.com

About Co:cubed

Co:cubed is a London-based innovation agency that works with Fortune 200 companies to make sure they work with the world's best startups. They design, build and supercharge world class innovation programmes. For further information: https://www.co-cubed.com/