Vynamic® Smart Vision | Fresh Produce Recognition

Simplify Fresh Produce Picklists with Computer Vision and AI

More than 3 in 10 shoppers avoid using self-service solutions when they plan to purchase fresh produce. Many customers feel that purchasing produce priced by weight or quantity, such as fruit, vegetables or other loose "non-barcoded" items, are sometimes complicated and time consuming—exactly what you don't want when you're trying to checkout and pay.

The process of scrolling through the picklists to find the right category, variety or type of product is sometimes a complex and time-consuming task. One of our recent customer surveys determined that it takes on average 10-15 seconds for a customer to select a single loose produce item from a picklist. Now think about an average shop and the amount of produce items customer buy. That adds up to a lot of time. The more items a customer buys, the more time the transaction takes, the slower the checkout process is, and the more queues build up. There is also a lot of margin for error, an aspect that many customers don't feel comfortable with because no one wants to be accused of being dishonest. It is a vicious circle…. But there is a solution.

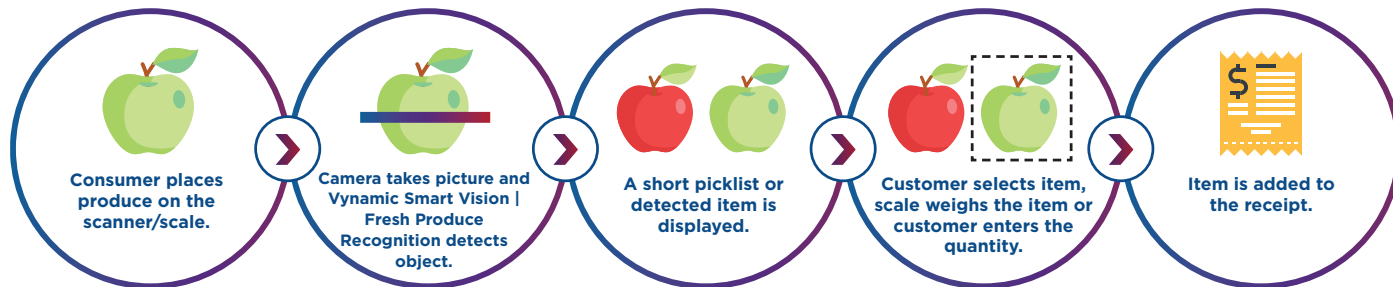### MORE EFFICIENT CHECKOUT EXPERIENCE

After the item is placed on the scanner/scale and the produce function is selected, our sophisticated AI solution Vynamic Smart Vision | Fresh Produce Recognition identifies the type of product. With a unique computer vision algorithm, the identified item will be shown or a short picklist to choose from, eliminating the issue of searching through a long list or remembering the PLU to find the desired item. The simplified process increases efficiency through faster transactions.

BETTER CONSUMER EXPERIENCE

By applying sophisticated algorithms, Vynamic Smart Vision | Fresh Produce Recognition monitors the scanning area to check whether an item has been picked up or dropped, whether it is a produce item, and, finally, what kind of item it is. With computer vision, the handling of non-barcoded fresh fruit and vegetables is easier. It eliminates consumer frustration, reduces complexity and saves your customers' time, resulting in a better shopping experience.

BETTER STAFF UTILIZATION

Vynamic Smart Vision | Fresh Produce Recognition eliminates the issue of searching through a long list of fresh produce items to find the item you want. It simplifies the checkout process for customers while reducing staff interventions to help customers with mislabeled fresh items. Errors and manipulations are exposed to reach higher stock accuracy and reduce shrink, resulting in greater transactional efficiency and better staff utilization.

Consumer places produce on the scanner/scale.

Camera takes picture and Vynamic Smart Vision | Fresh Produce Recognition detects object.

A short picklist or detected item is displayed.

Customer selects item, scale weighs the item or customer enters the quantity.

Item is added to the receipt.

THE CHECKOUT FLOW WITH VYNAMIC SMART VISION | FRESH PRODUCE RECOGNITION:

Your customers can easily handle fresh fruits and vegetables without barcodes:

- **Step One:** The consumer places the produce on the scanner/scale
- **Step Two:** A camera mounted next to the scanner takes a picture and Vynamic Smart Vision | Fresh Produce Recognition automatically detects the object
- **Step Three:** A short picklist or even the exact item is displayed
- **Step Four:** The customer selects item, the scale weighs the item directly or the customer enters the quantity.
- **Step Five:** The item is added to the transaction receipt

ADVANCED RECOGNITION FEATURES

- The AI model runs on the self-service system, saving CAPEX as no additional PC or installation is required, lowering start-up costs and reducing ongoing maintenance efforts.
- It is connected to the AI platform in the cloud via the Internet (mandatory), which is required for self-learning, manual training and continuous improvement of the AI model. The interaction can take place via the Vynamic Enterprise Manager.
- Self-learning algorithm, already trained on hundreds of non-barcoded fruit and vegetable items, that automatically updates and improves the database.
- Adding new items to the database can be done in-store on a self-service system in 2 hours by staff in addition to the self-learning mode.
- Detection of loose (reusable nets and bags) and packaged goods as well as counting of fruit and vegetables sold by quantity.
- Organic and non-organic marking detection on request.
- Front-end fraud prevention by detecting and analyzing anything on or near the scanner platen (field of view), such as customer's hands, fresh produce and other non-fresh produce.

- Item recognition for mixed fresh products: computer vision technology automatically classifies when different types of items are on the scanner platen (field of view) at the same time.
- Vynamic Smart Vision | Fresh Produce Recognition can run in silent and training modes before switching on live, without disturbing the daily business.

KEY BENEFITS

- As customers do not have to navigate through a long list of items, item processing time drops from 12-15 seconds to 3 seconds per item, resulting in a **4 times faster item recognition time**.
- With 4 times faster item selection times, **transactions** per hour can **increase by approximately 40%**.
- 3 in 10 customers with loose, non-barcoded items choose not to complete their purchase with self-service solutions. **30% more customers** with loose items can use self-service solutions.
- Weight- and customer request-based **interventions** are **reduced by up to 45%**.
- Using computer vision technology, inadvertent mistakes or malicious customer behaviour is reduced by automating the item selection process.

VYNAMIC SMART VISION | FRESH PRODUCE RECOGNITION: PART OF THE VYNAMIC SELF-SERVICE SUITE OF SOLUTIONS

High connectivity and openness are critical to being adaptive and ready to adopt future innovations, whatever they may be. Vynamic Self-Service is based on a platform approach using open APIs for faster and easier integration. Vynamic Self-Service is a service-oriented software solution that seamlessly supports the self-service process within a retail environment and easily allows the implementation of innovative solutions like Vynamic Smart Vision | Fresh Produce Recognition.

To learn more, **visit DieboldNixdorf.com.**