PICKING 20 EXTRA PACKAGES PER HOUR

OBJECTIVE

Process optimisation of order picking to gain time and reduce errors.

SOLUTION

- Voice-driven order picking with ZetesMedea using MCL Voice technology
- Integration into SAP ERP system

RESULT

- Productivity increase of at least 20 packages per hour, or 12%
- Error rate reduced to 0.5%

Liquor store Dirck III picks 20 extra packages per hour with ZetesMedea Voice

For Dirck III, one of the largest liquor store chains in the Netherlands, a fast and accurate order picking process is crucial. The company's distribution centre in Zundert delivers orders to over 60 shops and in October 2013, integrated its existing ERP system (SAP) with the ZetesMedea Voice solution. Now, using Zetes' 'untrained' voice solution, the distribution centre handles at least 180 packages per hour, representing a productivity increase of at least 20 packages per hour. And the voice-driven picking process also ensures that order errors are kept to an absolute minumum.

With more than 60 shops across the country, Dirck III is one of the largest liquor store chains in the Netherlands, selling both alcoholic and non-alcoholic beverages. Dirck III shops are stocked from its 4,500m² distribution centre in Zundert, where in-coming deliveries (from drinks manufacturers including Heineken and Coca-Cola) are gathered by 12 employees.

Order picking with stickers

As DC Manager, Jan van der Nagel has overall final responsibility for operations at Zundert. "Until September 2013, we prepared orders using A4 lists with 32 stickers on each sheet, but things often went wrong because the stickers would either fall off or get stuck to places where they shouldn't be. All this, together with lapses of concentration by order pickers, resulted in delivery errors at the branches," said Jan ven der Nagel.

"Order preparation speed was also a problem," explained van der Nagel: "The distribution centre is divided into 2 zones with slow and fast movers. Slow movers are products that sell less frequently, like Orangina, whereas fast movers are sold quickly, like Heineken. When preparing an order, order pickers would sometimes walk back and forth between fast movers and slow movers when they felt that certain crates or cardboard boxes in a different zone would stack better on the pallet or roll container than if the order list was completed according to the logical route. This meant that speed and time were compromised. "

Jan van der Nagel previously worked at Detailresult Logistiek, where order-picking was handled by voice technology and he knew from experience that it can improve productivity and accuracy.

Committed to productivity and quality improvements

"At the start of 2013, we evaluated the advantages voice could bring us. We did not have exact figures about delivery quality so

although we knew order picking quality would improve, could not attach an exact percentage to it. However, our calculations showed that introducing of voice would deliver a productivity improvement of 6 to 7 percent," explains Jan van der Nagel.

"Thanks to ZetesMedea Voice, we pick at least 180 packages per hour, which represents an increase of 12%."

Jan van der Nagel, DC Manager at Dirck III

In April 2013, Dirck III decided to switch to voice. Van der Nagel explains: "We had discussions with several companies but Zetes was able to show us live installations, including the voice-solutions implemented at A.S. Watson Health & Beauty Benelux (well known for the Kruidvat, Trekpleister, Prijsmepper and ICI PARIS XL brands). We liked the fact that ZetesMedea made use of the MCL Voice platform, which requires no training because the system is speaker-independent and adjusts to the different voice patterns of individual operators. This saves valuable time used by classic systems for training, registration and user profile configuration." After a comparative evaluation process, Dirck III finally selected Zetes, who installed the ZetesMedea Voice solution.

ZetesMedea is a logistics solution that efficiently manages all warehouse processes. Its aim is to organise these processes quickly and flexibly, avoiding errors and reducing costs. The ZetesMedea Voice module focuses on the use of voice technology for order picking in the warehouse. Using the MCL Voice platform, it offers a next generation, speaker-independent approach to voice recognition.

All that was required was to make a link between the existing SAP ERP system and ZetesMedea for flawless communication of order assignments and job status feedback. "In addition, we had to introduce check digits for pick locations and optimise wi-fi coverage," says Rens Stapel, Assistant DC Manager.

In mid-September 2013, the new system was run in a test environment within the distribution centre and at the start of October, ZetesMedea Voice went live, using Motorola hardware.

Picking process

Jan van der Nagel explains the way the current system operates: "In SAP, branch orders are transformed into pick lists via Warehouse Pro. These are then translated into the ZetesMedea environment."

Using ZetesMedea Voice, order pickers are equipped with a voice terminal and headset. The system directs the picker via the shortest route to each pick location, where it gives the order to gather a set number of packages. This is confirmed each time by the picker, via a microphone in the headset. "Picking no longer takes place according to the personal preference of the order picker and there is no switching between slow and fast mover sections."

Improved efficiency thanks to hands-free, automated picking
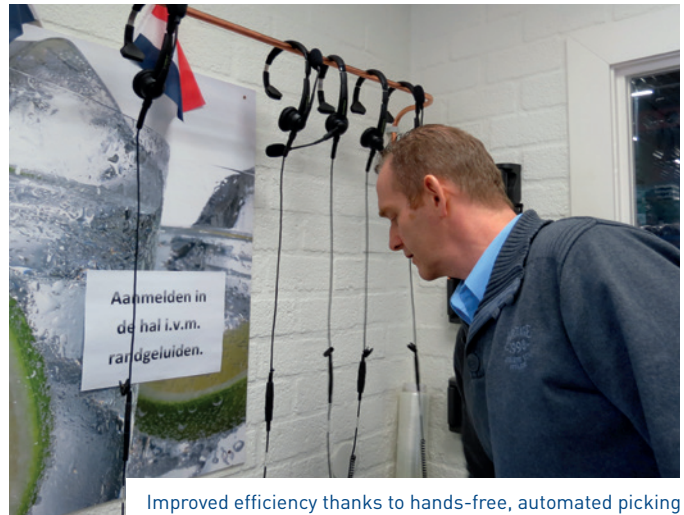
When all the products for an order have been collected, the 'end order' command sounds through the headset. This is the trigger for a container or pallet sticker with unique order, branch and trip number to be attached by the order picker, who is then free to proceed with the next order. ZetesMedea also enables orders to be sequenced according to priority.

In total, 12 order pickers work at Dirck III's distribution centre and use the ZetesMedea Voice solution.

Hands-free and automated picking increases speed and accuracy

A number of benefits have been seen after switching to voice, as Jan van der Nagel explains: "Order pickers now work hands free using headsets and can no longer choose their own pick routes. They also no longer need to apply stickers onto packages or experience problems with lost stickers. Overall, operators have reported greater job satisfaction and the system determines the shortest and quickest route for them through the warehouse, which has improved efficiency."

"Picking is now 99.5% accurate, which means branches can rely on their order deliveries being correct"

Jan van der Nagel, DC Manager at Dirck III

"Until November 2013, we picked on average 160 packages per hour. That volume has subsequently been increased to at least 180 packages per hour. For larger orders, where multiples of an article are picked, the rate has risen to 225 packages per hour and for special offers, it exceeds 300 packages per hour."

Voice minimises the chance of errors occuring in the warehouse: "Picking now has an accuracy of 99.5%, which means branches can rely on their order deliveries being correct," concludes van der Nagel.

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