Need Labor for the Distribution Center?

Use Your Voice

Where are My Distribution Center Employees?

The rapid growth of eCommerce coupled with low unemployment has put pressure on the supply chain and logistics, particularly in the distribution center where labor continues to be a critical component of the business for many retail, wholesale and manufacturing firms. Distribution center managers are running operations in an increasingly competitive environment where the drive to increase profitability must be managed with the need to meet customer expectations in this new e-commerce and click and mortar world.

Fast, free shipping, increased transportation costs and the imperative to manage multiple and creative customer fulfillment channels, further drive the need to manage labor costs efficiently. DC managers are challenged with finding qualified employees from a smaller pool of unemployed workers. The large population of baby boomers is aging and moving into retirement, causing a smaller group of available employees for the DC and putting upward pressure on the wages for these jobs. In some areas of the United States, turnover in the warehouse is running at 38% every six months due to warehouse workers moving to other locations offering slightly better hourly rates. If that pressure isn't enough, new minimum wage laws in several states well as the projected growth of healthcare costs, contribute to the DC's need to create a plan to maximize worker productivity now and moving into the future.

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Seasonal demands put even greater pressure on the DC Manager. The pre-holiday ramp-up as well as post-holiday cycle is typically a time when manufacturers and retailers hire additional labor to meet peak demands. Hiring as well as training the temporary team members is so important to meeting peak season operation requirements that during the 2017-2018 holiday season, hourly pay for this group rose and additional creative perks were added by some organizations, such as free lunches, bonuses, gym facilities and even stock incentives.[1]

People Remain a Top Priority in the DC

In a recent survey of Warehouse and Distribution Center Operations professionals, the top issue for 55% of the respondents was the "inability to attract and retain a qualified hourly workforce".[2] The Warehousing, Education and Research Council (WERC) also found similar survey results, as a surprising two-thirds of the warehouse managers they surveyed cited the people in their operations as the top priority.[3]

Maintaining Flexibility

While the pool of qualified candidates working in the DC is retiring, the demand for them is increasing. For many retail, wholesale and manufacturing operations, an evolution in tools and processes is more appropriate than a major overhaul to operations. For financial as well as other considerations, a wholesale move to 100% robotic operation is not a realistic prospect for many firms. Evolving existing processes to support near-term goals of profitability and customer service fit current needs. Optimizing productivity supports increased order cycle times and reduces cost-of-goods, since more productive work can be accomplished by the same team.

According to Deloitte[4], high-velocity distribution centers are increasingly considered strategic to providing a competitive advantage. One of the trends that is a critical driver in the space, is toward flexibility and keeping options open regarding automating warehouse operations now, and in the future. As organizations weigh the costs and benefits of deploying various types of Industry 4.0 and automation, voice enabled workflow remains a highly cost-effective way to achieve enhanced productivity with a minimal investment and a reasonable ROI timeframe.

Voice Enabled Technologies for the Warehouse

Adding voice to DC operations is well-established as a solution to increasing productivity for Picking. Although not a new technology, voice recognition has been steadily evolving. Voice recognition software has increased dramatically and is now speaker independent; the need to voice train the system for each individual has passed. Voice enabled technologies can be used on modern mobile computing devices, freeing the workers hands and eyes.

Within DC operations the greatest benefits are achieved in the most labor-intensive areas, such as picking and packing, however, any operation can be voice enabled. Picking is typically the initial application that organizations select to voice enable. Two key benefits of voice-enabled workflow are increased productivity and reduced errors. Adding voice removes the need to touch keys or look at the device and hands are then free to work with other tasks or to ensure worker safety.

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Using voice on the mobile handheld devices and barcode scanning significantly increases accuracy rates (to 99.9%). Increased accuracy is especially important for e-commerce fulfillment as piece picking increases relative to case picking in the DC. Customers not only expect to receive products very quickly, but they expect to receive exactly what they ordered. The negative impact to customer satisfaction and brand image could outweigh the actual cost of processing the incorrectly delivered item. The competitive nature of on-line sales in conjunction with the ease of sharing purchasing experiences has made customer profitability an even greater driver for manufacturers and retailers and order accuracy has increased in importance. Using voice enabled process significantly improves order accuracy.

Supporting Multiple Languages

Voice directed solutions for the warehouse can also provide additional support for multilingual warehouse team members. If your DC operations are located in another country, for instance, voice recognition can be deployed in the native language of the country, such as Spanish or Thai. With AccuSpeechMobile™ the voice project can be developed once and deployed in multiple languages, reducing voice automation development time. If there is a need to provide multiple language support in a single location that is easy to do as well, deploying one device with English and another with Spanish in the same distribution center, for instance. It is also possible to programmatically include key words and phrases in another language as alternative inputs to make it easier for bilingual workers.

The benefits of voice enabled warehouse applications extend nicely to the supporting a reduced ramp-up time for new and seasonal staff. Voice enabled workflows typically shorten the ramp-up time for seasonal staff in half, or reduce it even further, delivering an immediate positive impact on the bottom line. The productivity enhancements and increased accuracy delivered with voice enabled operations are also realized from the seasonal workforce.

Adding Automated Workflow

There are many ways that automation in the warehouse delivers improvements, and voice technology has also embraced automation. Automating repetitive tasks woven into the workflow with voice is an ideal strategy to gain further efficiencies with voice. AccuSpeechMobile's voice solution for the DC includes a patented technology which allows for automated workflow sequences to be programmed on the device. By combining automated commands with voice recognition, workflow can be further refined, and worker satisfaction improved. Automating repeated sequences directly on the device allows organizations the flexibility to avoid the cost and time typically involved with making changes to the warehouse management system. With a single voice command, the AccuSpeechMobile product can be programmed to execute a sequence of commands, freeing the worker to proceed to the next task.

Voice in Action

Let's take a look at how voice technology can be applied to lessen the effects of the labor shortage and alleviate some of the challenges associated with omnichannel fulfillment.

Increasing Productivity for the Existing Workforce

What type of impact can voice enabling applications have for an organization? A manufacturer and retail firm implemented the AccuSpeechMobile voice technology to assist with the growing proportion of ecommerce sales driving an increase in loose picking orders. After deploying voice picking the organization realized a 22.6% increase in picking productivity. Prior to deploying voice automation operations needed six fully staffed kiosks to handle error returns. After voice was installed, the error rates were reduced to 0.5% and only one return kiosk was needed for part of a day. The team of people working the kiosks were able to move to other warehouse operations areas.

Reducing Seasonal Workforce Requirements

A large worldwide retailer based in the U.S. implemented AccuSpeechMobile's voice directed solution for multiple applications in the DC, picking, replenishment, inventory, packing, shipping and more. This organization manages several large distribution centers and dozens of retail locations. The workforce to support operations exceeded 2500 in peak season. Before implementing voice for operations, the seasonal workforce was hired before Labor Day in early September to ensure time to ramp-up to rate and handle the holiday peak. After deploying voice, the seasonal team members were brought on board in early November rather than September. The seasonal team was able to get up to speed quickly with voice enabled operations and customized help text-to-speech that was included in the voice automation project and reduced the seasonal workforce requirements by two months.

Multilingual Flexibility

A large manufacturing and retail organization operating in many countries around the world implemented AccuSpeechMobile for voice picking. One of the goals of the project was to improve productivity in various DC operations around the world. The project was initially developed and tested in the U.S and subsequently deployed at DC's around the world in other languages such as Russian, Greek and Thai.

Another customer of AccuSpeechMobile has DC operations located in Southern California where the percentage of people who speak another language at home is close to 40%. For this client AccuSpeechMobile incorporated Spanish versions of the English words for ease of interacting with the system. Warehouse workers can speak "Ready" or "Listo" for instance or "Si" or "Yes" for voice prompts. Adding tailored help information in Spanish also helps with new worker ramp-up and for seasonal employees.

Automation on the Device

The synergy of voice enabled commands and automated work sequences on the device can be very powerful. Working in the Receiving area, one client was able to take a process that had multiple manual steps and automate the workflow to initiate from a single command, and this programming was done on the mobile device, not on the WMS application server. Before implementing voice, the work sequence for Receiving if an item was determined "out of stock", was for the operator to manually login to another application, load the appropriate screens to reorder product, manually type in data to complete the order and then close the session and return to the next item in Receiving. The process is now voice automated and with a single voice command the system launches the inventory application, populates the data from one system to the other, confirms it is complete and then closes the secondary session. This voice automation sequence significantly reduced the time spent previously on logging into the other system, manually populating data, opening and closing sessions, while improving accuracy for restocking.

Summary

Although the labor shortage for the DC is expected to continue for the next several years, flexible and cost-effective solutions to voice-enable warehouse operations exist today. Embracing these innovative voice solutions will allow retailers, manufacturers, wholesalers and others to gain the benefits of improved productivity and reduced errors in a reasonable timeframe and budget. The evolution of operations is often the most available route for many organizations to future improvements and adding voice technology embraces and extends what has already been optimized in the warehouse, rather than ripping out and replacing technology and the capital expense associated with wholesale changes. Voice enabling warehouse operations can positively impact the labor crunch in the DC at a time when it's needed the most.

The AccuSpeechMobile™ Solution

AccuSpeechMobile's unique, completely device-based solution voice enables and automates Supply Chain operations, including warehouse (WMS, ERP), distribution and field service applications (mobile inspection, maintenance and repair). AccuSpeechMobile extends the useful life of existing investments and connects to any warehouse management system (WMS, ERP), allowing clients to rapidly achieve double-digit improvements in workforce productivity, increased accuracy, workforce safety and operational efficiency.

Supply chain, distribution, field services, logistics, retail and transportation operations benefit from AccuSpeechMobile's device-based approach, often deploying the voice interface within weeks and demonstrating productivity gains immediately. Leading organizations in industries such as Aerospace, Apparel, Automotive, Consumer Goods, Publishing, Retail, Sporting Goods, Manufacturing, Wholesale and more have voice enabled multiple applications, demonstrating positive ROI in under 12 months.

The AccuSpeechMobile solution works with Android, Windows, TE (terminal emulation) and Web-based mobile devices. Voice Picking is a common first application for AccuSpeechMobile and additional distribution applications such as packing, cycle count, put away, shipping and receiving are popular candidates for voice automation, extending the productivity enhancements across the distribution center. For more information visit www.accuspeechmobile.com.

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About RMS Omega Technologies

RMS Omega helps businesses design, deploy, manage and service RFID, locationing, barcode, wireless, and mobile technologies that improve productivity, meet new compliance demands, and reduce operating costs.

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About AccuSpeechMobile

AccuSpeechMobile's voice automated workflow solution seemlessley layers into the existing technology environment to rapidly deliver increased productivity, accuracy, and workforce optimization, with an ROI of under 12 months.

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