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Finding the Order Picking System that is Right for You

Using Multiple Approaches per Facility is Increasingly the Smart Choice; the Seven Variables; Paying more Attention to Replenishment

SCDigest Editorial Staff

The following article is an excerpt from the recent SCDigest Letter on Advanced Order Picking Systems. To download an electronic copy of that Letter, or to access a variety of other Order Picking System information, visit our Advanced Order Picking Systems Resources page.

"Like any snow emergency, water drought or natural disaster, a national oil supply emergency should be governed by a plan," Black states. "A Plan? America does not have such a plan. No Plan A. No Plan B."

Is there a "best" order picking system for a specific distribution scenario?

Probably not. In fact, an emerging trend at the order picker level is for companies to combine different wireless pick technologies in some manner; for example, voice picking combined with bar code scanning for specific needs, and more interestingly voice combined with RFID pick validation.

But this "multi-modal" concept should have an even broader context – matching the right picking technology with the appropriate SKU and order profiles. This means there is no "best" order picking technology – the optimal choice is dependent on order and SKU characteristics, and often the best choice is to use several of these technologies in a single DC.

Cliff Holste, SCDigest's Material Handling Systems Editor, says he worked with a client a few years ago that eventually came to this recognition – to its ultimate benefit.

"For awhile the company kept analyzing all the options to identify the preferred picking approach," Holste said. "When we showed them a "one size fits all" approach wasn't going to deliver the results they wanted, but rather that we should selectively deploy different picking approaches based on velocity and other SKU characteristics, the whole project changed for the better, and the results followed."

Seven Key Elements

Order picking strategies must consider at least seven different variables:

- Unit of measure (pallet, cases, eaches, etc.)
- Storage mode to be used (floor stacking, selective rack, pallet flow, carton flow, etc.)
- Potential use of automation (pick-to-belt, carousels, ASRS, etc.)
- Order release method (discrete order release, waves, etc.)
- Picking method (discrete order pick, cluster picking, batch picking, etc.); this is usually directly connected to the order release method
- Order picking communication and validation approach/technology (RF, pick by label, voice, RFID, etc.)

Finding the Order Picking System that is Right for You (Con't)

The Multi-Modal World

One compelling order picking vision is to combine voice-directed picking with RFID validation of what cartons are actually selected. This "multi-modal" vision is explored in more detail in an article on our Order Picking Resources page (www.scdigest.com/letter).

The key to matching technology to the picking need is to do a detailed study of Order and SKU Activity profiling. In that way, the optimal physical DC location, storage mode, and picking technology can be determined for different blocks of SKUs – usually resulting in a "multi-modal" blend of approaches across the DC.

One thing Holste emphasizes is the need to focus on replenishment processes that support the picking system strategy and technology.

"Many picking systems have been implemented that could drive huge increases in picking efficiency, but which don't realize that potential because of bottlenecks to replenishing pick locations,' Holste said.

That means spending the effort to model replenishment capacities in as much detail