
Maximizing Data Within the Four Walls of the Warehouse

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Q&A

The e-commerce boom, the shift to omni-channel distribution, and SKU proliferation are joining forces to put increasingly high demands on today's warehouses and distribution centers (DCs). To compete effectively, these facilities must be able to flex and adapt to these and other changes, or risk alienating their internal and external customers.

Warehouse and logistics managers are also grappling with a lack of physical space in an environment where such space is both expensive and hard to find. In fact, it's been nearly 20 years since there was this little amount of industrial and logistics space available in the U.S., where CBRE says availability dipped to 7% in late-2018. That marks 34 consecutive quarters of declining availability (the longest since CBRE started tracking the data in 1988), in a real estate sector where space absorption is currently outpacing construction by about 57 million square feet.

Throw the labor shortage and faster delivery times into the mix and you get a business environment that's ripe for change. In this Insider Q&A, Kardex Remstar's Director of Systems and Special Applications Doug Card delves into the key challenges facing all warehouse and DC operators right now and shows how automation is driving people, process, and functional improvements across the board.

INSIDER Q&A:

Doug Card, Kardex Remstar's Director of Systems and Special Applications, shares his knowledge on automated facilities and how to maximize the use of data in the intralogistics environment.



Q: What's driving the need for more automation in the warehouse right now?

A: A lot of companies are completely out of space. They're also having a tough time managing their own growth and dealing with omni-channel right now, particularly on the fulfillment side. Finding more space is expensive, and filling those spaces with skilled labor is getting harder and harder. Automation allows the companies to maximize their existing space while leveraging the associated data to make better business decisions.

Q: How is SKU proliferation impacting the distribution environment?

A: In the e-commerce world, companies wind up with much higher SKU counts and a lot of product and order customization. For example, consumers want their sneakers in specific designs and colors, and is what impacts the number of SKUs companies have to deal with. At the same time, higher demands are being placed on DCs as they shift from the traditional distribution model to omni-channel. They're not picking cases anymore; they're picking individual SKUs (and more of them, thanks to SKU proliferation) and this is changing the whole intralogistics paradigm for how a DC works including receiving, storing, picking and packing.

Q: What tools and processes are out there to help companies work through these challenges?

A: Many organizations are addressing these labor and space challenges through a combination of automation and software. They realize they no longer can use a traditional DC schedule (i.e., fill up a truck with pallets, ship it once a week, etc.). Everything is happening on-demand and companies are under more and more pressure to compete. They've got to keep costs down—and the number one cost in most of these facilities is labor—so they are using automation for labor savings and flexibility. With scalable automation, companies can manage labor fluctuation (seasonal peaks, unemployment lows) better than they can with traditional manual systems.

Q: What is the role of software's inside today's automated distribution facilities?

A: Software is the glue that provides the business intelligence, tying all of the systems together. It manages the workflows and eliminates unnecessary touches. In the interest of saving labor and increasing productivity, companies want to "touch" the orders as little as possible. Using software, companies can maximize their workflows and allow product to move through the facility as easily as possible—all while eliminating any unnecessary touches. Software also maximizes system efficiencies and allows orders to be processed as quickly as possible. This is particularly critical in the e-commerce world where customers expect their stuff quickly. Finally, software increases both inventory and order accuracy while decreasing the number of returns that have to be managed and processed.

Q: How do all of these functions tie together into a streamlined system?

A: It's about selecting good business systems right from the beginning. So, when we're talking about business systems, we're talking about warehouse management systems (WMS), warehouse control systems (WCS), warehouse execution systems (WES), and inventory control software. By putting those good business systems in place from the very beginning, as companies add automation, change their workloads, and grow their businesses, they have the software that they need in place to support that growth. Those software systems and business systems should be flexible and highly-configurable in order to enable company growth, future automation, and extended workflows.

Q: How can savvy operations better leverage and utilize data?

A: A key factor in selecting your business system is to ensure you can get key business data out of them. In other words, you want an open system that allows for easy reporting, that would be a minimum expectation. Then the next level would be for those systems to include business analytics and business analytics tools so you can actually analyze the data and provide detailed information about your operations and how they could be improved.

One of the hot topics that's going on in the industry now is artificial intelligence (AI), and companies are using it to analyze all aspects of their businesses and really trying to gain an advantage in their respective market spaces. As AI continues to gain traction, it's really being driven by the data itself.

In other words, if you don't have the systems in place to capture all of the historical data, then you're at a disadvantage in the marketplace because a lot of future-looking companies are using AI and data to predict future business directions and to make good strategic decisions. You need the data in order to be able to implement those types of leading-edge technologies.

Q: How are operations using data to improve efficiency and drive change?

A: Slotting data is a good example because it allows a company to track its slow-moving, medium-moving, and fast-moving products. In our business, we see a lot of companies putting an inordinate amount of time and effort into their slotting activities, and especially when they're adding a new, automated system to the mix. They'll spend a lot of time analyzing their data and slotting it properly, so that the system runs well in the beginning.

But over time, it deteriorates and performance suffers because the system doesn't automatically analyze and track that slotting data. That's because at the outset, the company used its previously-manual process to figure out its slow, medium, and fast movers; where those goods should be slotted and in what inventory locations; what should go on racking and shelving; and which of them should be automated.

A better approach is to allow the automation to do the dynamic slotting for you. It will track what's moving slow, medium, and fast, and then automatically re-slot items based on the actual product movement. It can also tell you which products are dogs, and which ones should either go into slow-moving rack locations or be eliminated completely. This is just one of many examples of how companies are using data to drive change.

Q: What else should operations managers be doing to leverage their data and take full advantage of their investments in automation?

A: Engage IT early in the process. Too often, companies either go ahead and select and implement their automated systems without bringing IT in on the ground floor. This can create major difficulties because when IT isn't engaged early in the process, becomes a problem down the road. My other piece of advice would be to choose your business systems carefully, especially when you're thinking about going into automation.

It's very critical that you choose solutions that allow your system to adapt, grow, incorporate new components, integrate new workflows, and add new pieces of automation over time as your business changes. Make sure these solutions not only support your current operations, but that they're also scalable and able to support your operations as they continue to grow. Even small changes in your business can drive significant changes in distribution and fulfillment. Make sure you choose automated business systems that enable this level of adaptation.

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