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First Thoughts

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Readers Respond – Two Paths for DC Automation?

Gilmore Says:

"My quick take: I still stand by my prediction that the two ends of the spectrum will tend to grow, and the middle will shrink. Not dramatically, but some. We'll be watching closely."

What do you say? Send us your comments here

So, are there two paths for DC automation, as I posited a few weeks ago?

At the time (see **The Two Paths for DC Automation**) I suggested that two somewhat opposing forces (high and growing labor costs and challenges, need for greater flexibility), are gradually driving companies towards two extremes in distribution center automation: either highly automated facilities, to drive out labor costs and headaches, or those with little automation, to maximize flexibility. Moderate levels of automation would be squeezed – not eliminated, of course, but companies would tend to drift to one of the extremes.

Was I crazed? We'll let SCDigest readers help sort it out. Between letters sent directly to SCDigest and to our content distribution partner **RetailWire**, we received over 30 responses, most of them excellent. In one of my favorite types of columns, this week I get to put my brain mostly on the shelf and share some of the best of those reader comments.

Jim Barnes, president of EnVista, in general agreed with my perspective.

"I see my many companies (Grocery and Auto) pulling automation out of their DCs. We are pushing and we are seeing traction in the area of LEAN Distribution. Given that in the above mentioned industries we are ripping out automation because we can use a WMS with manual processes (cart, pallet picking) and touch the product one time," he said. "We took one client (Grocery) that had pick to belt, routing sorter and pallet building from 35 cases per hour (total man-hours) to 96 cases (total man-hours) because we went from touching the product 5 times to 1 touch."

But, he added, "We are using automation in high volume throughput facilities (Retail Apparel and Shoes). Obviously you are not going to pick 100,000 pair shoes in one shift without a Tilt Tray sorter. In summary, I agree with, the extremes: highly automated facilities versus manual facilities."

Larry Shemesh of Operations Design opined that I was not completely off with my thesis, but that "the application of automation or lack thereof might not be as polarized" as I suggested.

But he adds a point that I think is supportive of one end of my bi-polar view: "Forecast is a huge wildcard in the automation equation.Tight and accurate the business forecasts through the design year (typically five years forward) provide a greater opportunity to effectively apply automation," Shemesh wrote. "This is partially due to the inverse relationship between automation and flexibility. Often, this is the last nail in the coffin for automation projects. When executive management's crystal ball is foggy, it is virtually impossible to develop meaningful return on investment calculations" for automation.

Shemesh added his own prediction: "I expect that there will be remain a relatively small percentage (10-15%) of highly automated supply chain operations here in the United States over the next decade and that 20-25% of operations will remain largely manual. The balance will apply pockets of automation in the areas that are most labor intensive and/or time and capacity critical." In other words, he does expect the middle to remain strong.

Marc Wulfraat of TranSystems/ESYNC agrees that we can expect to see growth in the percentage of highly automated DC systems, driven as I suggested by growing labor concerns.

"There is little debate that these [highly automated] projects involve risk and are expensive (in that the ROI tends to be longer term) but the companies that are investing in these systems are doing so primarily as a labor strategy," Wulfraat wrote. The bottom line is that we in North America will eventually be facing a much more serious warehouse labor shortage. The risk of increasing wage rates, labor shortages and labor disruption will drive more and more firms towards automation solutions.I think we are now just seeing the tip of the iceberg."

He says he is seeing a lot of interest by companies in the grocery industry, for example.

"In recent years we have seen a number of firms in this industry (Kroger, Supervalu, Sobeys, Stop & Shop, Wegmans, H.E. Butt to name a few) implement or announce major automation projects and I am aware of more companies that are secretly exploring moving in this direction," Wulfraat added.

Dean Starovasnik of Peach State Integrated Technologies notes that for any individual company, how they look at this equation depends significantly on their own approach to finance.

"The level of automation which is justifiable is at the mercy of the ROI/IRR [internal rate of return] hurdle the client has set," Starovasnik wrote. "Privately held companies are often more willing to take a more extended ROI perspective than those publicly traded. The forces at work in this are well understood "on the street" and can drive payback periods half the length or less than those accepted by a privately held company."

Mark Lilien of the Retail Technology Group added this interesting perspective: "Physical distribution executives have been debating increased automation paybacks for decades. Many distribution centers haven't tried sustained significant productivity incentives for their work forces, however. When productivity incentive programs are done skillfully, the paybacks often beat the risk and expense of major automation. Another alternative: sooner or later, more physical distribution will be done from Mexico, cutting labor costs considerably."

So there you have it. I may do this again next week, as we only scratched the surface of the comments we received, including many more excellent and thoughtful responses.

My quick take: I still stand by my prediction that the two ends of the spectrum will tend to grow, and the middle will shrink. Not dramatically, but some. We'll be watching closely.

All the letters mentioned above are included in full in this week's Feedback section below – you will enjoy them. The rest soon, but we'd still like your perspective.

What is your reaction to our reader comments on this issue? Do you agree that the two extremes – highly automated and manual – will expand, and the middle will shrink? Or will we see the status quo? Why? Let us know your thoughts at the Feedback button below.

Let us know your thoughts at the feedback link below.

Dan Gilmore

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