10 ways to maximize the benefits of warehouse automation

With the warehouse labor shortage at an all-time high, it's no surprise that shippers and third-party logistics service providers (3PLs) are turning to automated systems in record numbers. While automation offers opportunities to reduce labor and costs, expand capacity, and boost service, choosing the right technologies can be challenging. To provide some guidance for companies beginning their automation journey, the authors of the "2024 Third-Party Logistics Study" identified 10 ways they can maximize the benefits of warehouse automation. They are as follows:

1

Identify the "burning platform."

Prioritize the warehouse areas with the largest opportunity for improvement. Typically, this will be in the order selection process, where 50% or more of labor is often allocated.

2

Don't pave the cow path.

Focus on improving current processes before committing to new technologies. Otherwise, it will suboptimize investments.

3

Avoid islands of automation.

Seek a holistic solution instead of a single technology or point solution. Warehouse automation needs to work seamlessly with upstream and downstream processes and technologies.

4

Select the technology before the supplier.

Determine what technologies are the best fit for your specific business requirements. Not all technologies within a category have the same capability. Each will come with its own unique capabilities, constraints, and cost structures.

5

### Prioritize tried-and-true solutions over bleeding-edge technologies.

Practical, proven automation solutions generally equate to less risk, higher reliability, and fewer headaches. This route doesn't necessarily mean avoiding less-mature or emerging technologies, but it does point up the importance of testing (see #6).

6

Test solutions.

Start with a proof of concept to confirm or reject the viability of an application. Then examine a prototype via a mathematical emulation, a digital simulation, or a physical mock-up in a test environment and/or pilot test in a live operational environment.
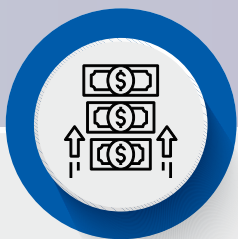
7

Land before you expand.

When possible, rationalize the size of the initial commitment to an automated solution. Learn from the results. Then adjust accordingly before making a further financial commitment.

8

Don't forget about the software.

Software fuels the warehouse automation engine. Invest in complementary software solutions that seamlessly integrate, manage, orchestrate, and optimize warehouse equipment, labor, and order fulfillment requirements.

9

Research integrators.

Material handling systems integrators have various levels of experience and different capabilities and limitations with specific warehouse automation solutions. Have providers compete for business and confirm their ability to implement the solutions that best fit the organization's requirements before making a contractual commitment.

10

Make a two-way commitment.

The best relationships require a commitment and collaboration from both sides. So, plan to commit significant time and internal resources to maximize the overall benefits.