SOFTENGINE WHITEPAPER SERIES

Midsize Companies Adopt Warehouse Automation

Today's companies are no strangers to digital disruption, and if you have not already begun your digital transformation, you are indeed planning on it. To keep up in an ever-changing, increasingly fast-paced marketplace, midsize manufacturing and distribution companies introduce digital strategies into their warehouses. The biggest buzzword in recent years? Warehouse automation.

The global warehouse automation market is estimated to grow at a CAGR of 14%, reaching $30 billion by 2026 (3). This should come as no surprise since companies of all sizes have been increasing automation for several years. A recent study suggests that over 85% of warehouses have already begun to reap the benefits of incorporating automation in their business processes (3). During the first half of 2019 alone, North American companies spent $869 million on more than 16,400 robots (2). And this rapid growth shows no signs of stopping! 43% of companies have warehouse automation as an investment priority (3). Warehouse automation has many benefits for small and midsize manufacturing and distribution companies, including increased productivity and safety, improved accuracy and cost savings, and greater adaptability for an increasingly digital world.

"The level of automation we now have is awesome. We can effectively track every part of our operations in real time and effectively manage each facet of our omnichannel strategy.

Visibility into our inventory at every location is crystal clear and we have instant access to all of our sales, customer and production data. As a result, we can make better decisions and better manage our growth process."

- Nora Orozco, President, BED|STÜ

Enhancing Productivity and Safety

How much would your bottom-line increase if you could enhance productivity by up to 50% without adding any additional labor? Automation can increase productivity and efficiency by 25-50% (3). Companies adopting warehouse automation are increasing efficiency to keep costs low while ramping up production, which is a constant challenge for smaller companies as they scale for growth. Labor costs account for more than 66% of most warehouses' functioning budget (3). According to Supply Chain Dive, the average warehouse worker spends 80% of their time moving around in the warehouse, amounting to 6.9 weeks a year (3). Investing in warehouse automation can make your valuable workers significantly more efficient. Walking and manually picking orders can account for more than 50% of the time associated with picking. By leveraging automation technologies like sorters, AS/RS, conveyors, and more, time spent "walking" can be reduced by up to 40% (1).

Robots are not replacing warehouse workers, but rather enhancing their efficiency to make them substantially more productive without increasing costs. Cobots are collaborative robots designed to work together with humans to complete tasks. Rather than replacing employees, cobots assist them in working moreefficiently. According to studies, robots and humans working together can be up to 85% more productive than working alone (3). The most common warehouse cobots seek to eliminate unnecessary walking by performing the transportation so that workers can focus on picking and other revenue-producing tasks. Cobots can increase warehouse efficiency by 30% by performing repetitive, undesirable tasks (3).

Automation can also help enhance safety within the warehouse. The manufacturing industry ranks third for on-the-job incidents, and there are about 5 workplace injuries for every 100 full-time workers annually (1). Machines can conduct the most dangerous processes and are less prone to human error, meaningless injuries!

Improve Inventory Accuracy to Reduce Costs

Did you know that retail inventory is only accurate 63% of the time (1)? That means over a third of the time, and inventory is inaccurate! Precise inventory counts are essential to fill customer orders on time, keep storage costs low, prevent waste and spoilage (especially for products with limited shelf-lives like food or medicine), and efficient material requirements planning. Technology that provides a complete, real-time view of your inventory and sales orders lets you know exactly how much of each product and materials you have on hand, how much is promised to orders, and how much more you may need to produce. Automated updates to your inventory and financials make cost-accounting efficient and straightforward. Warehouse automation also removes human error and significantly increases accuracy, sometimes up to 99.9% for tasks like inventory picking (3).

While some midsize manufacturers and distributors may hesitate to invest in automation, this strategy is extremely cost-effective due to reduced labor costs and high return-on-investment (ROI). Robots often cover their costs in just three to nine months, enabling small- and mid-sized businesses to adopt them even on smaller budgets (3). Automating your inventory management provides monumental benefits to midsize manufacturers and distributors. When operations upgrade their pick/inventory systems from paper-and-pencil to a more integrated form of order processing, they enjoy on average a 25% gain in overall productivity, a 10-20% gain in space use, and 15-30% more efficient use of stock (1). Imagine the associated cost savings and increases in revenue!

Prepare for Increasingly Digital Markets

Every industry has begun shifting to increasingly digital business models, and 2020 only accelerated this trend for manufacturing and distribution warehouses. The Industrial Internet of Things is being adopted by large corporations and small businesses alike thanks to high ROI and greater accessibility. By 2025, we expect to see over 50,000 robotic warehouses, with the installation of over 4 million robots worldwide (3). These robots can help with various tasks, including sorting, picking, packing, transportation, fulfillment, security, and inspection. The use of automated guided vehicles (AGV) and automated mobile robots (AMR) is also on the rise and are soon expected to be the norm, accounting for 18% of the warehouse automation market (3). These robots are easily adaptable for growing companies that are beginning to automate since they do not require any changes to existing floorplans or infrastructures. Increased efficiency due to automation allows you to keep up as product cycles continue to shrink and consumers expect new and innovative products daily.

According to trends, 72% of logistics providers will increase their warehousing IoT investment (3). To make the most of these investments, companies need integrated technology to track each automated component and process in real-time to maximize efficiency. Data analytics tools allows you to aggregate all the data from your smart devices in real-time and draw meaningful, actionable insights. Furthermore, these tools can help consolidate updated sales orders and customer inquiries.

The increase in e-commerce and direct-to-consumer selling models due to COVID-19 also requires midsize companies to adopt more automation. With 66% of customers choosing e-vendors based on delivery options, 63% say delivery speed is vital, and 77% are willing to pay for faster delivery (3). Automated systems can handle small to large individual orders and reduce pick and pack time. Automation means faster shipping times, making warehouse automation necessary to attract and retain customers.

Conclusion

In today's digital age, midsize manufacturers and distributors need to embrace automation trends to increase productivity, enhance safety, decrease costs, and prepare for future growth and digitization. Tools that allow for automated planning and inventory management will enable you to prepare for increased automation and digital processes and offer a whole host of additional benefits.

Sources

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