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Warehousing Vision Study: E-Commerce Impact

Understanding the impact of e-commerce

Investing in and implementing new technology are key to staying competitive in the current on-demand economy

Where Do We Go From Here?

Decision-makers surveyed across all sectors have plans to address the rise in e-commerce that are both immediate and expected to persist over time.

Pressure To Feed the Omnichannel Ecosystem

In the last two years, **nine in 10** warehouse operators cited average shipping volume increases of **23%** in business-to-business fulfillment, with almost as many seeing the same average increases for direct-to-consumer fulfillment. Manufacturer drop-ship volumes have climbed **22%** on average as well. As a result, respondents say they are planning to increase the volume of items shipped and stock more SKUs.

This underscores what has been done and still remains to realign operations with today's omnichannel ecosystem. Both businesses and consumers must be supplied with the right inventory at the right time, and this is putting pressure on warehouse operators to ensure faster on-time delivery.

Leaning More Heavily on Third-Party Logistics

With warehouse operations' role in customer satisfaction, organizations recognize that they may not have the specialization or the technology to quickly ramp up their operations to meet the demands. As a result, **three-quarters** of decision-makers say they'll add third-party logistics (3PL) services or operations to support increased e-commerce activity within the next three years. In 2019, only **60%** of respondents planned to implement this strategy to support their organization's warehouse operations over a three-year period.

Adapting To Meet Growing Demands

Decision-makers realize they need people to meet new customer demands. Despite the shrinking labor pool and availability of new automation solutions, **86%** of decisions-makers plan to expand their workforce in the next three years to support their increased focus on e-commerce. In 2019, **73%** of decision-makers expected to add headcount as part of their implementation plans.

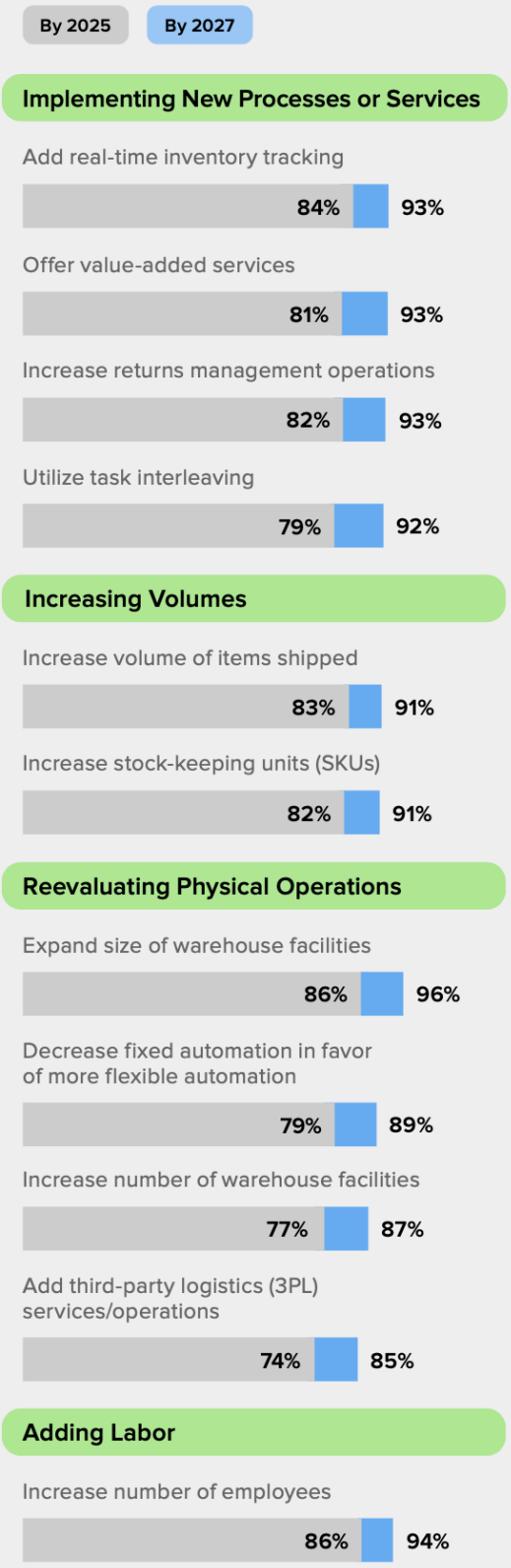
Even with these hiring ambitions, decision-makers know labor gaps may linger. They are looking to new technologies, services and processes at an even greater rate than in 2019 to better meet the evolving needs of those they serve.

In 2019, about **seven in 10** decision-makers planned expansion of returns management operations, addition of value-added services and utilization of task interleaving to streamline workflows within a three-year period. However, with increased e-commerce activity, more say they will add or expand these operations in three years:

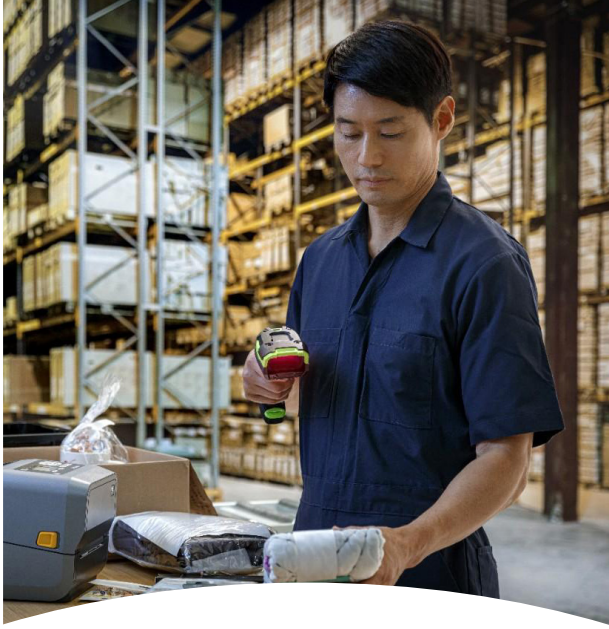
- Returns management operations: **+12 pp**
- Add value-added services: **+13 pp**
- Utilize task interleaving: **+9 pp**

Growth Areas in the Next Five Years

(Percentage of Organizations)



Growing E-Commerce Drives Changes



Today's increased e-commerce activity correlates with an increased demand in the commercial real estate market. CBRE, a commercial real estate services and investment company, estimates that every $1 billion of e-commerce sales requires 1 million square feet of new distribution space. With the expected $1.5 trillion rise in e-commerce by 2025 globally, CBRE predicts 1.5 billion square feet of warehouse/distribution space will be needed to accommodate this growth.[2]

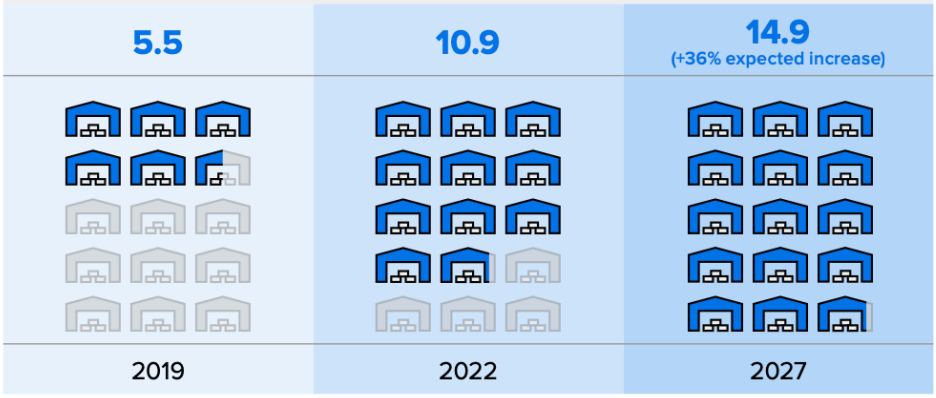
Increasing Demand for Warehouse Space

In alignment with CBRE's predictions, decision-makers confirmed plans to expand or increase their warehouse facilities in the next year due to rising e-commerce activity. Within the next year, decision-makers said they will have expanded the size of their warehouse facilities **(72%)**, increased the number of warehouses **(55%)**, or relocated their facilities **(50%)**.

Manufacturers and wholesalers expect the most significant increase in the number of warehouses they will operate in the next five years, with a **42%** and **38%** increase in the number of facilities, respectively. Retailers have one of the lowest expected increases in number of warehouses (a **32%** increase in five years), likely due to their ability to leverage existing brick-and-mortar stores for order fulfillment.

Warehouse Facility Growth Comparison Through 2027

Average number of facilities (all industry sectors)



Operational Improvements Lead the Way to Modernization

As decision-makers accelerate modernization project timelines and **62%** increase funding to modernize and/or scale existing projects, the opportunity to connect such projects to planned facility additions or expansions can deliver a greater return on investment (ROI).

Decision-Makers' Improvement Plans

In the next 1–3 years

Increase Visibility

55% Invest in inventory and asset visibility within the warehouse

54% Invest in increased visibility across the supply chain

Support Front-Line Workers

56% Automate workflows

54% Prioritize labor optimization

53% Invest in robotics

53% Invest in software that helps automate analytics and decision making

2. CBRE, *U.S. Will Need 330M Sq. Ft. of Additional Distribution Space by 2025*

Embracing Technology in New Ways

Decision-makers understand the importance of technology, with **87%** confirming the need to implement new technology to stay competitive in the current on-demand economy. While technology investment carries some risk, **82%** say their organizations believe investing in automation far outweighs the risk of not implementing it.

Today, in addition to augmenting workers with devices and/or automation, **five in 10** say they're also using sensor or real-time location technology in a targeted or widespread manner to speed up and add more visibility to their operations. Doing so helps them provide the best-next-move to their workers, as well as more predictive capabilities. By 2027, almost **six in 10** plan to utilize real-time visibility.

Decision-Makers Rate Operational Maturity by 2027

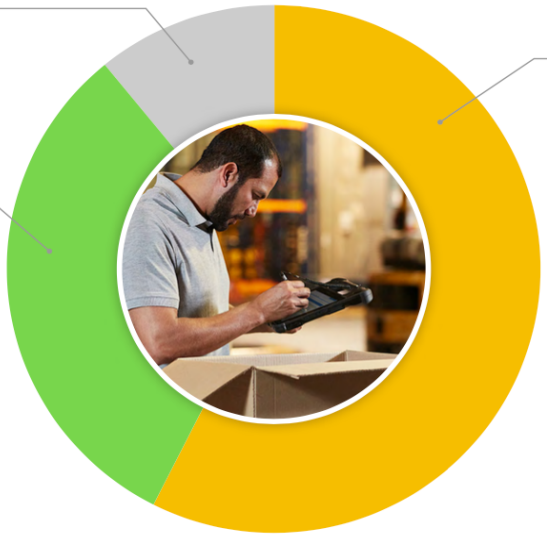
10% Siloed and Reactionary

Inefficiencies due to lack of inventory and workflow visibility

32% Augmented Workers With Mobility and/or Automation

15% Improving operations by gaining basic control of operations through capturing each inventory move

17% Optimizing the use of mobility by deploying devices and automation based on the task, safety and proper ergonomics



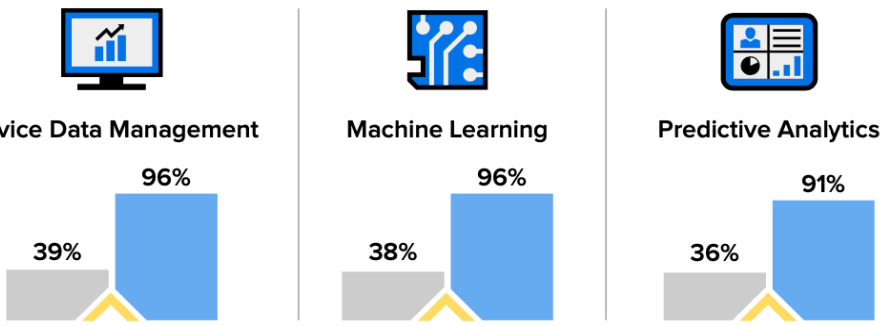
58% Augmented Workers Plus Use of Real-Time Visibility

16% Targeted use of sensors to automate tasks

23% Orchestrate widespread use of real-time visibility to automate decision-making based on location

19% Use analysis of multiple data sets to constantly predict and adapt operations

Software-as-a-Service Technology Implementation



92%

of associates

Agree technology advancement will make the warehouse environment more attractive to workers.

Embracing Technology in New Ways
(continued)

With respondents' heightened concern about challenges within their outbound packing, staging and loading operations, it's not surprising that many have turned to sensor-based technologies to help automate data capture, information flow and decision-making. Some of the ways sensor-based technologies support these workflows include:

Fixed industrial scanning automates sortation workflows for outbound staging.

Radio frequency identification (RFID) provides irrefutable proof of carton contents at shipping.

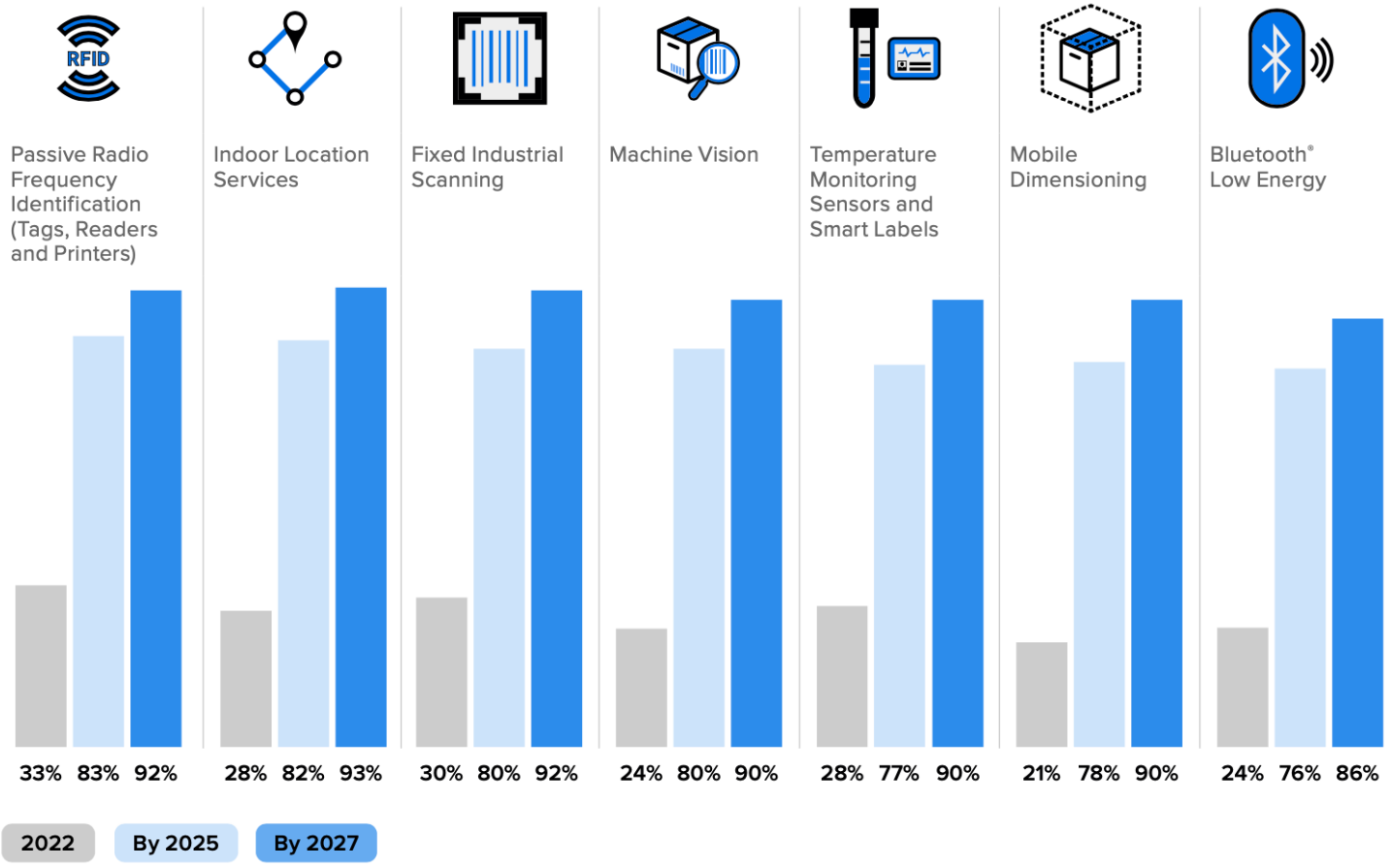
Machine vision systems document outbound parcels by inspecting labels.

Real-time location systems (RTLS) quickly locate material handling equipment, associates and inventory, even in motion.

Mobile dimensioning software can capture accurate parcel dimensions to streamline operations with improved load planning and space utilization.

Each of these sensor inputs can be used with software applications powered by machine learning and artificial intelligence algorithms to provide more prescriptive guidance to front-line workers.

Implementation Plans for Sensor Technologies To Modernize Warehouse Operations



Empower your connected workforce

Today, five in 10 decision-makers are utilizing mobility with some level of automated data capture, location solution, or predictive and adaptive data analytics. Within five years, almost six in 10 are expected to be utilizing mobility with these sensor-based technologies, with more emphasis on automating decision-making and constantly predicting and adapting operations in real-time.

With AbeTech, you can do more with less when you have access to connected technology experts who understand your challenges and simplify your day.

About AbeTech

At AbeTech, we are dedicated to helping technology leaders simplify their connected technology transformation. We understand your challenges, simplify your technology initiatives, and enable you to maximize your IT investments.

About Zebra Technologies

Zebra empowers organizations to thrive in the on-demand economy by making every front-line worker and asset at the edge visible, connected and fully optimized. Zebra serves customers of all sizes with an award-winning portfolio of hardware, software, services and solutions that digitize and automate workflows.

Contact us for a complimentary needs assessment

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