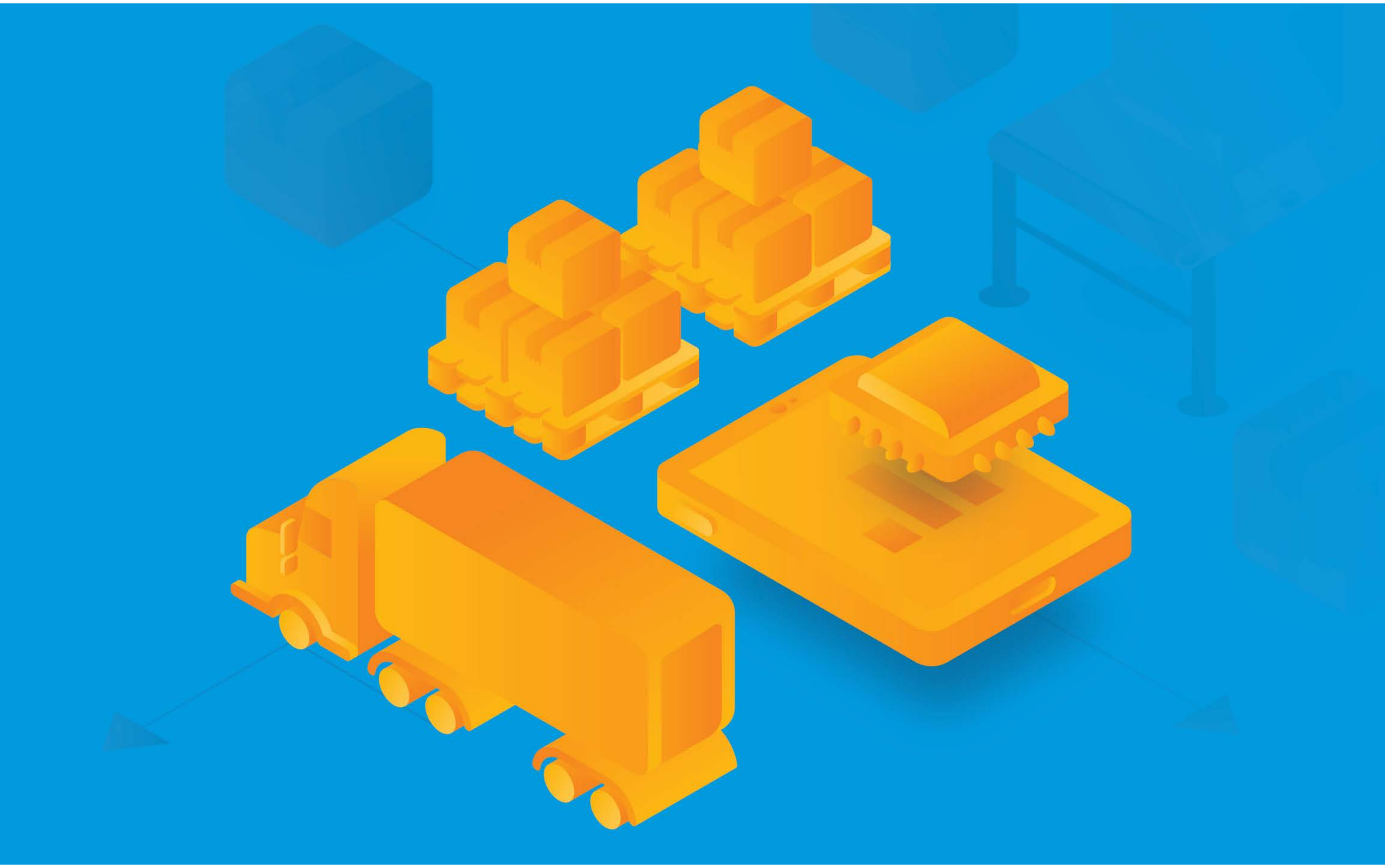
Logistics Management

RESEARCH BRIEF

Navigating the Future: Top Trends Shaping Material Handling & Transportation



New report reveals the top challenges and opportunities that companies are facing in the modern material handling and transportation environment.

bluegrace

INTRODUCTION

The material handling and transportation sector continues in the midst of an evolution as companies deal with ongoing challenges, address emerging roadblocks and leverage new opportunities. The persistent labor shortage, rising business costs, push to digitize and sustainability top the list of concerns that are keeping logistics and supply chain managers up at night.

Operationally, key concerns include improving efficiency, enhancing throughput and meeting customers' changing requirements—all within the context of an ongoing warehouse and DC labor shortage. Warehouses are using more automation to address these obstacles, and at the same time are paying closer attention to their own carbon footprints and sustainability initiatives.

Out on the road, maintaining end-to-end visibility over shipments remains an elusive goal for many companies, according to a new report from BlueGrace Logistics. In partnership with Peerless Research Group (PRG), the transportation management solutions provider surveyed readers of Logistics Management to learn more about current challenges, new areas of opportunity and future trends related to material handling and transportation.

CHECKING IN ON THE EVOLVING LOGISTICS LANDSCAPE

The 2024 Logistics Management Current State & Future Trends survey is based on responses from 145 professionals, all of whom are personally involved with the material handling and/or transportation functions—either for their own companies or for other organizations.

Most survey respondents are involved in the management of transportation, trade, warehousing, inventory or another logistics function within their organizations. Fifty-seven percent evaluate suppliers in this space, while 53% suggest or determine need, 50% recommend suppliers, 49% authorize or approve decisions, and 44% personally select the brand or supplier.

Half of respondents (50%) say their primary customers are B2B, while 15% say B2C and 36% work with a combination of the two. Breaking the respondents down by job title, the majority are VP/GMs, corporate/divisional managers, logistics/distribution managers, transportation managers or operations managers.

These professionals work for manufacturers (42%), transportation and warehouse service providers (15%) and wholesalers (12%). Key industries represented include food, beverage and tobacco; chemicals and pharmaceuticals; automotive and transportation equipment; and fabricated metals. Total revenue sizes for the participating companies ranged from under $50 million (for 38% of respondents) to $2.5 billion or more (9%). The majority (35%) work in facilities that are less than 50,000 square feet in size or 50,000 to 100,000 square feet (22%). Seventeen percent of respondents say their facilities are 100,000 to 500,000 square feet, and 13% operate in buildings that are larger than 500,000 square feet.

In terms of organizational size, 65% of survey participants are employed by companies with anywhere from 100 to 499 total staff members. Another 35% work for organizations that have between 500 and 5,000+ employees.

WHAT'S KEEPING LOGISTICS & TRANSPORTATION MANAGERS UP AT NIGHT?

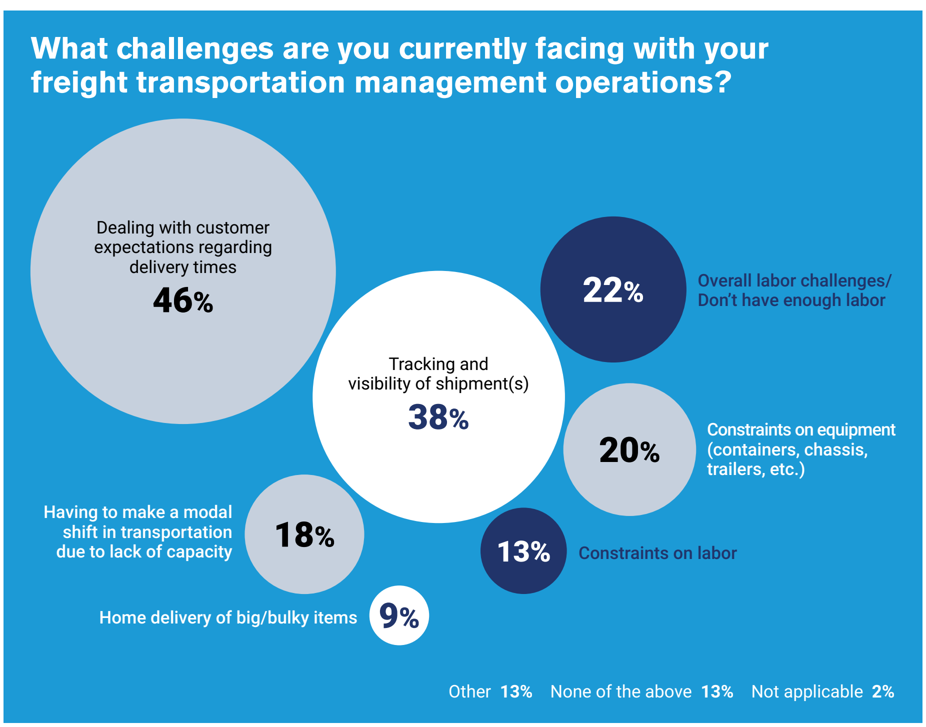
The modern supply chain environment is fraught with challenges that logistics, warehouse and supply chain managers are being asked to solve on a daily basis. The survey uncovered a broad swatch of challenges that companies are facing in their freight transportation management operations this year.

The biggest challenge is dealing with customer expectations (46%), followed by tracking and visibility of shipments (38%), overall labor challenges or not enough labor (22%), and constraints on equipment (20%). Respondents also had the opportunity to write in answers to this question and many of them pointed to cost as a core headwind right now.

To manage and contain these freight costs, 46% of respondents are improving decision-making and planning, 35% are consolidating shipments and 35% say they are working with fewer carrier service partners. Others are optimizing internal resources (32%), working with more carrier services partners (29%) and adopting carrier key performance indicators or "scorecards" (24%).

Companies that want to manage and/or contain freight costs can leverage technology to plan (meet/exceed customer expectations), eliminate tribal knowledge and enforce business rules within technology to execute their strategies. Other good moves include improving access and integrity to data, and using data to ensure strategy is correct and adjust quickly where needed. Carrier agility is key in this market, with the main questions being: can you effectively cost/service/speed based on results or gut feeling? Or, should you use data and automation to execute multiple business rules to improve control over transportation?

FIGURE 1

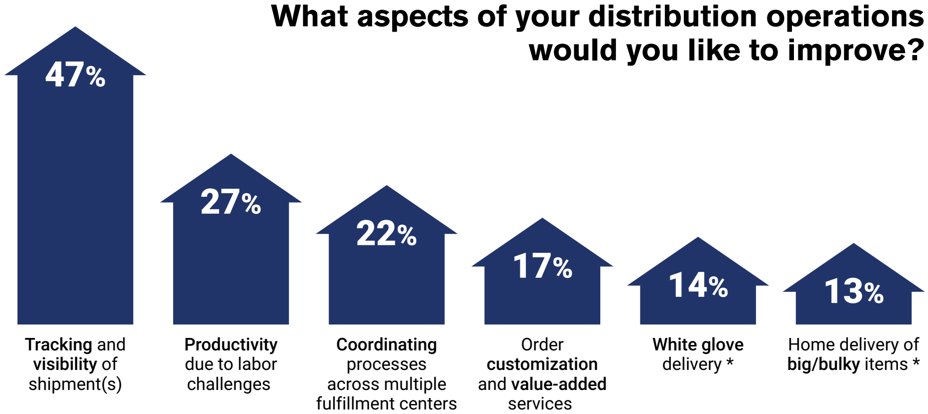


Of course, there's always room for improvement in distribution operations, and particularly in light of the constraints that these facilities are grappling with right now. According to the survey, 47% of companies are prioritizing better tracking and visibility of shipments as an area of improvement and 27% want to improve productivity as a result of the current labor challenges.

Other areas in need of improvement include the coordination of processes across multiple fulfillment centers (for 22% of respondents); order customization and value-added services (17%); white glove delivery (14%); and home delivery of big/bulky items (13%). Managed services providers like BlueGrace can help ease these burdens by offering a full menu that includes global 3PL services (including cross-border capabilities), extensive industry knowledge and strong carrier relationships that yield the best rates and shipping options.

FIGURE 2

What aspects of your distribution operations would you like to improve?



* high touch, difficult delivery logistics, etc.

Other **7%** None of the above **10%** Not applicable **6%**

At the end of the day transportation is still people and trucks and people are needed to dig into details, manage exceptions and use data to make better decisions. Most shippers have under-resourced transportation teams that result in more reactive support, but fractional staffing can help scale up personnel, reduce OPEX and build out a more resilient transportation team.

Over the next year, 47% of companies plan to spend time determining possible solutions to visibility and tracking shipment challenges in their distribution operations; 28% say coordinating processes across multiple fulfillment centers is a top priority; and 22% have placed meeting next-day or same-day delivery requirements a core priority for their operations.

CONQUERING SHIPPING COMPLEXITIES

Companies sent out anywhere from 200,000 to less than 1,000 domestic and global shipments annually. Most survey respondents (60%) ship less than 1,000 international shipments annually, while 31% ship fewer than 1,000 domestic shipments every year. Thirty percent say they ship between 1,000 and 9,999 domestic shipments, while 24% ship between 1,000 and 9,999 international shipments within a year. Around 14% ship more than 200,000 domestic shipments per year and 3% ship more than 200,000 international shipments annually.

FIGURE 3

What would you estimate the number of annual domestic and international shipments to be?

	Less than 1000 shipments	1,000 to 9,999 shipments	10,000 to 49,999 shipments	50,000 to 99,999 shipments	100,000 to 199,999 shipments	200,000 or more shipments
DOMESTIC	31%	30%	17%	3%	6%	14%
INTERNATIONAL	60%	24%	6%	5%	2%	3%

Companies rely on a diverse array of shipping modes to get their shipments from origin to final destination. As their primary shipping modes, 68% of respondents use truckload, 65% rely on less-than-truckload (LTL) and 55% use parcel carriers. Another 41% primarily use ocean shipping, 33% use air cargo and 27% prefer flatbed trucks. Other popular shipping options among respondents include intermodal shipping (22%), rail (15%) and tanker trucks (6%).

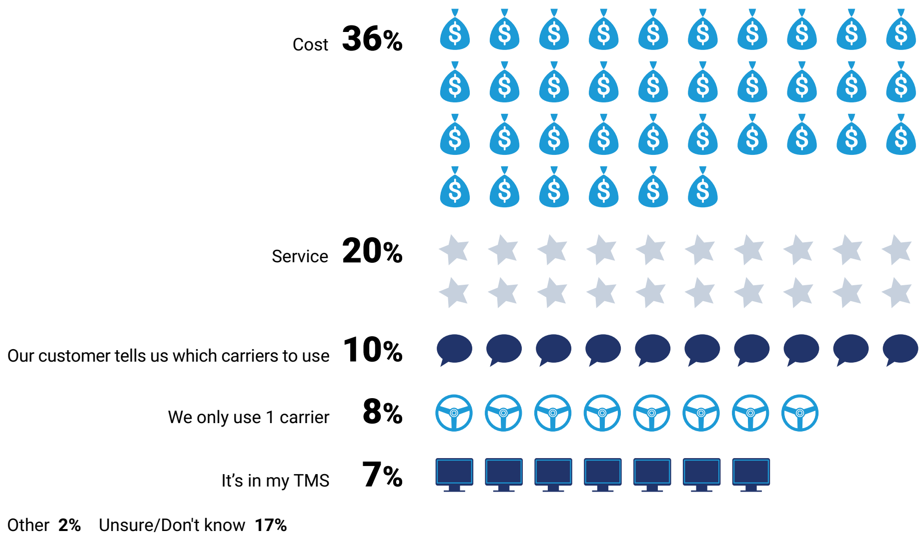
When selecting transportation modes, 35% of respondents decide based on customer/delivery requirements, 30% say their decision is driven by cost and 14% use shipment size as a deciding factor. About 7% use transit time as selection criteria when picking a mode of transportation.

Companies can use optimization software to drive the right mode based on the order attributes versus static rules. For example, “everything under 150 pounds goes by parcel and everything other that goes less-than-truckload is a broken rule. Optimization can also ensure trailer utilization and help companies build the best plan for every order while considering their strategies and business rules.

Cost, service and track record all come into play when companies make their final carrier selections. According to the survey, 36% of companies say cost is the biggest factor in this decision, followed by service (20%) and the customer's carrier preference (10%). Eight percent say they only use one carrier (so they don't necessarily make a decision each time while 7% rely on their transportation management systems (TMS) to help with carrier selection.

FIGURE 4

How do you determine which carrier to use?



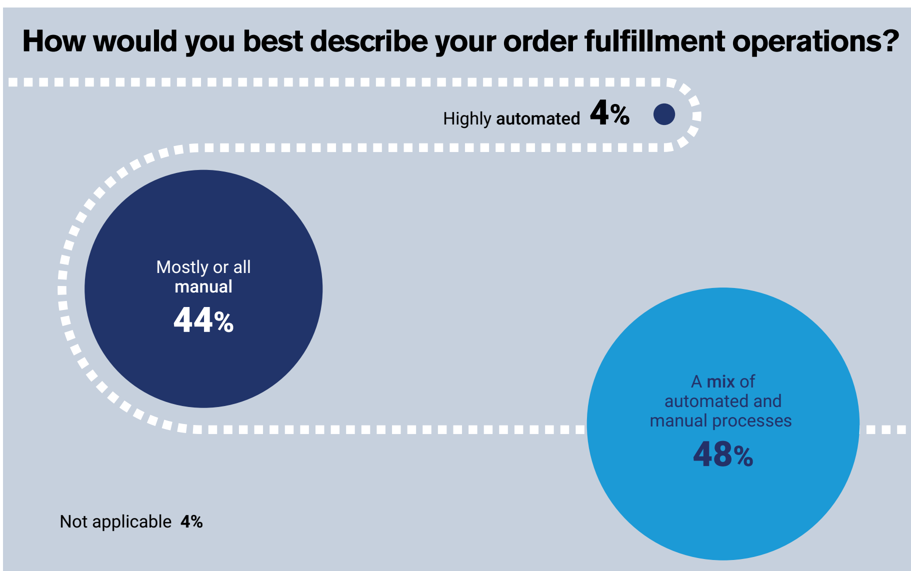
Dynamic rating and ensuring the carrier rate accuracy are both critical. Companies can use score-carding to track how carriers bill and better understand when the "least cost" or "best value" carrier is selected. By eliminating tribal knowledge from the business and building the rules into a TMS, companies know that they're getting the best options based on the specified parameters.

ROBOTS AND AUTOMATION ON THE RISE

Automation is no longer a “futuristic vision” for warehouses and DCs. It’s a mature trend that’s transforming how organizations receive goods, store merchandise and fulfill orders. Asked about the current state of their automated fulfillment operations, 48% of survey respondents say they’re using a combination of automated and manual processes. Forty-four percent say their operations are still mostly or completely manual and 4% are working in “highly-automated” facilities.

Over the next 12 months, 36% of companies intend to invest in automation to improve their freight operations and 64% say they have no such plans at this time.

FIGURE 5

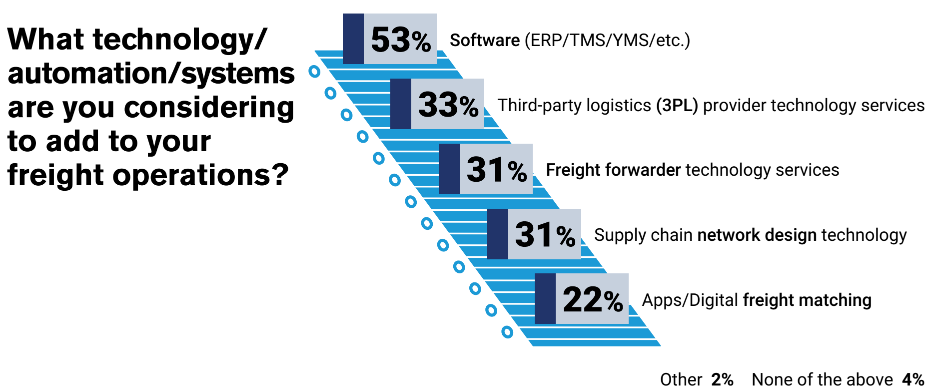


When investing in future technology or automation systems for freight operations, 53% of companies say they'll be evaluating enterprise resource planning (ERP), TMS or yard management systems (YMS). With 3PLs like BlueGrace extending robust technology infrastructures out to its own customers, companies are generally eager to leverage the opportunity and offload the IT responsibility to reliable providers.

Transportation platforms are typically expensive and difficult to build compliance and ROI, but Bluegrace customers can leverage its optimization software, TMS and business intelligence to reduce transportation costs and extract more value out of every dollar of transportation spend. Leveraging a TMS builds value across the business, automates freight audit, captures accurate data and automates processes.

In fact, 33% of respondents are currently considering 3PL-provided technology services and 31% are interested in freight forwarder technology services. Still others are considering implementing supply chain network design technology (31%) and digital freight matching apps (22%).

FIGURE 6



As artificial intelligence (AI) and generative AI (GenAI) continue to make their way into the business world, fulfillment operations appear to be taking a cautious approach to these emerging technologies. When asked if they are applying AI in their organization, just 13% of respondents say that they are. Sixty-five percent say they're not and 22% are unsure at this time.

Companies that have yet to embrace AI say it's mainly because they're just not ready for it yet. Others don't see a need in their organization, aren't aware of the options or just "aren't there yet" in their operations.

WHERE'S MY ORDER?

Both B2B and B2C customers expect their orders to be fulfilled on time and in full. When this doesn't happen, disappointment can quickly lead to frustration. With the next competitor always just one screen tap or mouse click away, companies simply can't afford to leave their customers wondering "where's my order?"

FIGURE 7

Companies understand the consequences of late orders, with the biggest result being dissatisfied customers, according to 69% of survey respondents. The impacts don't end there: 49% of companies fear lost revenue sales due to late orders while 39% are worried about losing customers entirely.

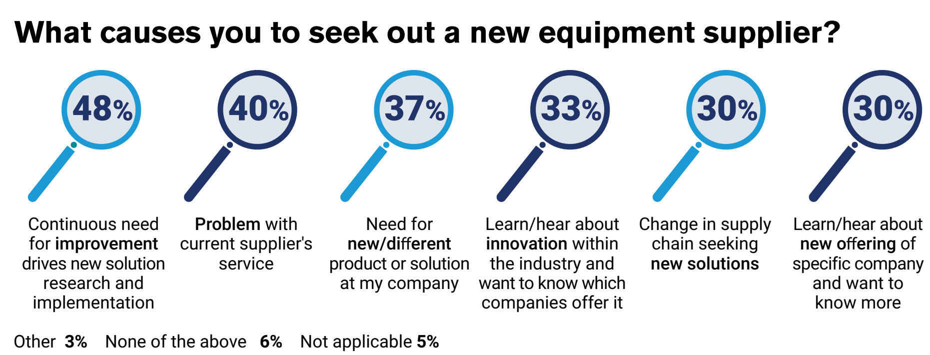
Other negative consequences of late orders include order cancellations (29%), product replacement costs (17%) or having merchandise spoiled or ruined as a result of the delays(13%). Of course, companies have to give LTL carriers a chance to hit customer expectations, ship date planning and buffering transit based on OTD data. Bluegrace's technology automates this entire process, and ensures that shippers have the carrier transit data to prove—and reverse engineer—the ship date.

WANTED: NEW SOLUTIONS TO NEW & OLD PROBLEMS

As their logistics operations evolve and customer requirements change, companies actively seek out new solutions to both old and new problems. Almost half of survey respondents (48%) say that continuous need for improvement drives them to find new equipment suppliers, while 40% make this move when they have an issue with their current supplier's services. Also, 37% say they start evaluating new suppliers when they need a new or different product or solution.

Others say they seek out new equipment suppliers because they learn or hear about innovation within the industry and want to know which companies offer it (33%), there are changes in the supply chain seeking new solutions (30%), or they learn of a new offering from a specific company and want to learn more about it (30%).

FIGURE 8



It's no secret that companies struggle to understand their data, build a story/case and implementing a plan to fix it. By leveraging fractional support, organizations can better identify, implement and measure continuous transportation improvement initiatives. The reality is that most 3PLs don't have enough people to identify and drive change, and shippers with under-resourced transportation teams just scramble to keep up with the Jones's.

Logistics and warehouse managers are hungry for knowledge in this information age, where new trends, challenges and opportunities are always emerging. To get new information about logistics management, material handling, packaging or storage solutions, 70% of respondents look to industry publications, 60% refer to company websites, 48% use email newsletters/information sent from providers, 42% attend tradeshows and 34% consult with distribution or reseller partners.

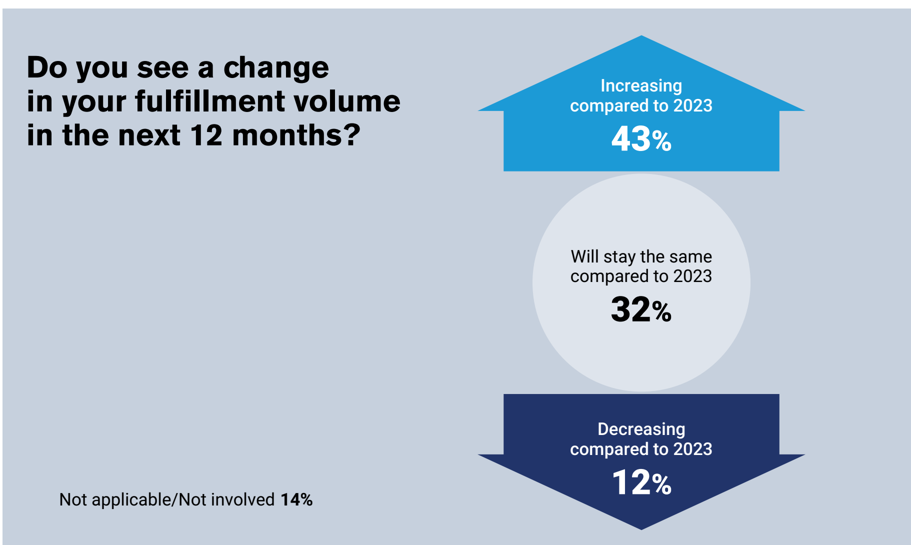
WHAT'S COMING NEXT?

The global warehousing and distribution industry is poised for growth and particularly in emerging economies. Human expertise will remain a critical force in the distribution environment, where companies are using automation, AI and other innovations to make work less strenuous and more engaging for their valued team members.

Over the next 12 months, 43% of respondents expect their fulfillment to increase (compared to 2023), 32% say volumes will remain steady and 12% are expecting decreases. In assessing their current labor resources, 37% of companies say they'll be able to handle their facility's volume this year while 48% are "somewhat prepared" for the volume increase. Another 6% of companies say their current labor resources may be inadequate.

To offset the labor shortages, 39% of companies are implementing or improving retention practices; 38% are focused on recruiting practices; and 32% are relying on more temporary workers. Others are adding more warehouse vendors such as 3PLS (19%), using more automation or robotics (13%) or reducing total volume from customers.

FIGURE 8



Another way to address the persistent labor constraints is to understand the process that teams have to execute on a daily basis, knowing that the "it's how we've always done it" approach can typically be decoupled and automated to some extent. Bluegrace's flexible integration can identify ways to streamline process, eliminate the need for so many touches on a shipment and drive a more efficient transportation model.

MASTERING THE ROAD AHEAD

The trends unveiled in this industry report converge to create an extremely dynamic and evolving industry that has a lot on its plate right now. Rather than attempting to address every single challenge—and leverage all available opportunities—themselves, smart organizations are turning to reliable managed transportation providers for help. With a partner like BlueGrace in their corner, these organizations can focus on what they do best: running and growing their businesses.

Partnering with a reputable 3PL offers numerous benefits on the supply chain cost optimization front. A knowledgeable provider brings industry expertise, specialized infrastructure and established networks to the table. Businesses can leverage economies of scale, negotiate favorable freight rates, and access value-added services like warehousing, transportation and order fulfillment. By outsourcing non-core logistics functions to a valued provider like BlueGrace, companies can focus on core competencies while benefiting from cost-effective, streamlined supply chain operations.

ABOUT BLUEGRACE LOGISTICS

BlueGrace Logistics offers customizable transportation management solutions as a full-service third-party logistics provider that helps shippers manage their freight spend through industry leading technology with a large network of established carriers across the country. With nine offices strategically located in major transportation hubs across the U.S., including national headquarters in Tampa, BlueGrace serves over 10,000 customers annually through its proprietary technology platform, BlueShip, which connects with more than 250,000 carrier suppliers. BlueGrace is part of the technology portfolio of Warburg Pincus, a leading global private equity firm. For more information on BlueGrace please visit mybluegrace.com.