

Logistics: Where Do We Go From Here?

Insights from Blue Yonder's Supply Chain & Logistics Executives Survey



Table of Contents

Navigating the Growing Complexity of Logistics	p1
Amid the Chaos, Clear Priorities Emerge	р2
A Focus on Customer Service	р3
Digitalization Is a Key Enabler	р4
Overcoming Labor Shortages	р7
Managing Ongoing Volatility	р8
Sustainability Regains Momentum	р9
Nearshoring: An Emerging Trend	p10
Where Do We Go From Here?	p11
About the Survey	p12





Navigating the Growing Complexity of Logistics

While every industry has experienced its share of challenges in the wake of the COVID-19 pandemic, the end-to-end supply chain and global and regional logistics operations have been forever transformed by the events of the last two years. This includes product availability issues, labor shortages, and a sudden and dramatic shift to e-commerce – followed by port closures, skyrocketing inflation and geopolitical unrest. These events starkly revealed the significant risks faced by supply chain and logistics professionals as they work to profitably navigate a supply chain environment that's characterized by disruption and uncertainty.

Since supply chain volatility seems unlikely to go away, Blue Yonder wondered, "What are supply chain and logistics executives' top strategies for managing disruption? How are they planning to increase their chances for success in today's complex world?"

To answer those and other questions, Blue Yonder partnered with a third-party provider to conduct a survey of 150 C-suite and senior executives across manufacturing, retail, third-party logistics (3PL), transportation, and warehousing, with responsibility for logistics and manufacturing operations in the U.S. To capture evolving trends, Blue Yonder compared the results of this survey with a similar study conducted in April 2021.

In the new study, nearly all respondents (88%) reported that their companies experienced disruption over the last year, with 26% of respondents facing significant disruption and 37% facing a moderate amount of disruption.

Despite the complexity and unpredictability of the global logistics environment, Blue Yonder's survey reveals that executives are confident in their ability to take corrective actions; make proactive investments, including increased digitalization; and position their companies for success. No matter what the future brings, they are taking steps to prepare for lasting improvements – and, as supply chain and logistics professionals, we should all be encouraged by that.

Terence Leung

Senior Director, Solutions Marketing, Supply Chain Execution

Amid the Chaos, Clear Priorities Emerge

What steps are supply chain and logistics executives taking? While this report goes into detail about Blue Yonder's survey findings, here are some key take-aways:

- Improving the customer experience is a top priority as executives strive to enhance product availability, delivery speed and other aspects of service.
- Companies are increasing their technology investments to gather real-time insights, make fact-based decisions and pivot rapidly as conditions change.
- · Digital solutions are critical in combatting labor shortages as they increase speed, accuracy and productivity across the supply chain.
- Digitalization is also essential in managing disruption by enabling swift corrective actions that are driven by data - and fueled

- Enabled by technology, companies are also refocusing on sustainability as they regain control of many other operations aspects.
- Companies are investigating innovative network strategies, including nearshoring, to increase the responsiveness and profitability of their supply chains.

A central theme that emerged from the study is the importance of leveraging an advanced technology toolkit to drive visibility, flexibility and efficiency across the supply chain. While many companies made decisions on the fly at the height of the COVID-19 pandemic, today their increasing investments in digitalization are positioning them to take a more strategic, measured, fact-based approach - while still responding quickly to upstream and downstream volatility.



A Focus on Customer Service

Even before the pandemic, customers were gaining power in the logistics industry. Factors such as increasing competition, the emergence of omni-channel fulfillment models and the aggressive delivery promises of Amazon and other e-commerce sellers have placed incredible pressure on logistics companies.

When asked about their key initiatives for the future, it's not surprising that the majority of executives are prioritizing improvements related to customer service.

More than half (55%) of respondents said ensuring inventory availability for high-demand products is most important for enhancing the customer experience as their companies navigate ongoing supply chain disruptions. In Blue Yonder's 2021 survey, just 13% of respondents cited availability as their top priority. (Note: In the earlier survey, participants could only choose one customer-service priority.)

Nearly half of 2022 respondents cited consistent on-time delivery (43%); increasing consumer visibility regarding inventory (42%); and offering flexible fulfillment options like curbside pickup and same-day delivery (41%) as most important. The pandemic and its aftermath have only emphasized the need to reliably deliver the products and services customers are looking for in order to win both short-term sales and long-term loyalty.



Which of the following is most important for enhancing consumer experiences as we navigate ongoing supply chain disruptions? Select all that apply.

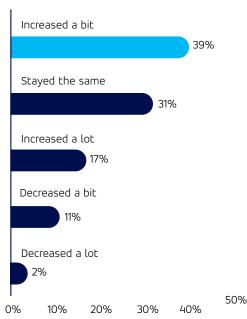


Digitalization Is a Key Enabler

How are supply chain and logistics executives planning to increase their visibility, flexibility and demand responsiveness so they can deliver the right mix of products and services, at the right time?

Over half of survey respondents (56%) said investment in their organization's supply chain has increased over the last year, with 17% saying it increased a lot. Another 31% said it stayed the same. Only 13% said their organization's investment in the supply chain has decreased

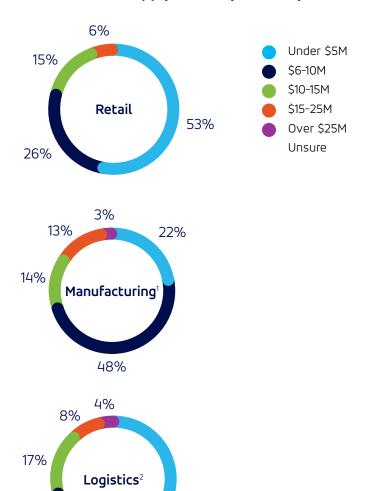
Has investment in your organization's supply chain increased or decreased over the last year?



Half of respondents (50%) have invested \$6 million or more in supply chain over the last year, with nearly a quarter (24%) investing \$10 million or more. By industry, retailers are investing the most, followed by distributors, transportation companies and logistics providers.

This finding is not surprising, as these industries were especially affected by the disruptions of 2020 and 2021, including the shift to e-commerce, product availability issues, port closures and labor shortages. Investing in improved supply chain visibility and responsiveness makes good business sense for these organizations in particular.

Investment in supply chain by industry:



63%

8%

¹ Manufacturing respondents included: Automotive, Bio-Tech, Consumer, Discrete – Industrial, Medical Devices, Pharmaceuticals, Specialty Chemicals, and Other.

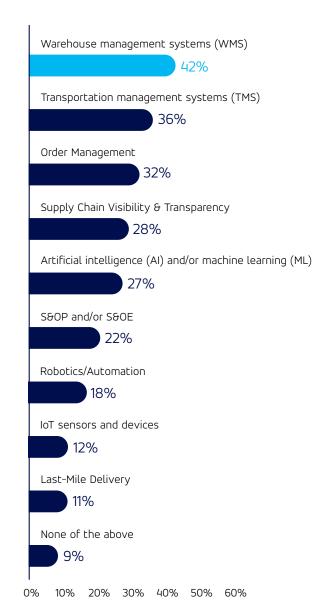
² Logistics respondents included: 3PL/4PL and Transportation.

It's clear that digitalization is viewed as a key enabler of supply chain improvement. Advanced technologies have been proven, again and again, to help companies manage extreme levels of supply chain volatility and make profitable, data-driven decisions. Of the survey respondents, 57% said their organizations are focused on investments in supply chain technology improvements, while 25% reported that their companies are investing in a complete digital transformation of their operations.

What technologies are logistics organizations planning to adopt? The largest number of respondents (42%) plan to implement or enhance warehouse management systems (WMS) in the next 12 months. Transportation management systems (TMS) come in second, with 36% of respondents planning an implementation or enhancement in the next year. And, 28% of participants noted that their organizations are focusing on increasing supply chain visibility and transparency via technology. There was a similar pattern in last year's survey for WMS and TMS, which were also among the Top 4 choices.

Also important are investments in artificial intelligence (AI) and machine learning (ML), named by 26% of executives as a target for their businesses. Because these advanced technologies exceed the cognitive speed and scope of human analysts, they can help logistics teams analyze huge volumes of real-time data and make strategic, profitable decisions quickly when conditions change. Plans to invest in AI and ML fell from 42% in the 2021 study, likely an indication that many respondents have begun to implement these capabilities in the past year.

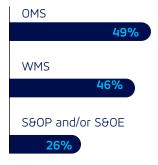
Which of the following areas of logistics technologies do you plan to implement and/or enhance in the next 12 months? Select all that apply.



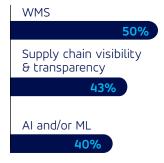


Top 3 areas of logistics technologies planned for implementation or enhancement by industry:

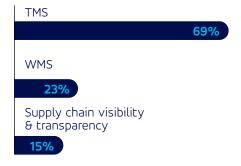
Retail



Manufacturing¹



Logistics²



- ¹ Manufacturing respondents included: Automotive, Bio-Tech, Consumer, Discrete – Industrial, Medical Devices, Pharmaceuticals, Specialty Chemicals, and Other.
- ² Logistics respondents included: 3PL/4PL and Transportation.





Overcoming Labor Shortages

Talent shortages are impacting just about every industry, but the logistics industry has been critically impacted by a lack of labor in both warehouses and the transportation functions. Supply chain and logistics executives in the Blue Yonder study noted that their companies are aggressively recruiting new employees, as well as investing in initiatives that will increase associate retention.

About half of respondents (48%) are offering more competitive pay and bonus structures to attract and retain talent. Retailers lead in this effort, with transportation coming in second. Manufacturers and Health Care Distributors tied for third.

Of respondents, 41% are providing higher levels of training to upskill current employees, while 38% are being more lenient in considering the specific job or industry experience of candidates.

Over the next 12 months, almost half of respondents (45%) plan to address the tight labor market by investing in advanced workforce and labor management technologies. These digital solutions will help increase both customer service and employee job satisfaction, creating a win-win situation. In 2021, 54% of executives were planning these technology investments, a sign that many implementations occurred over the past year.

In addition, 28% of executives said that their companies are planning to increase their investments in automation across their logistics networks, down from 39% a year ago. Robotics and other automation tools are exploding in popularity as they reduce demands on the human workforce, while significantly increasing speed and accuracy in targeted applications.

How are you planning to address the tight labor market over the next 12 months? Select all that apply.



Managing Ongoing Volatility

As mentioned earlier, 88% of executives reported that their organizations have been challenged by supply chain disruptions, with 26% facing significant ones. But what are the real-world effects of this volatility? How has it impacted companies' key performance targets and all-important customer service objectives?

Of the organizations that faced disruption, the biggest impact on supply chains were customer-facing delays (58%), staff shortages (43%), stalling of production (38%) and an inability to keep up with demand (24%).

Despite these significant issues, 60% of executives described their supply chains as "reliable" in the face of disruption. This is encouraging evidence that, after two full years of volatility, many organizations are beginning to adapt to the new normal and troubleshoot ongoing exceptions more effectively.

As executives become smarter about advanced technologies, they're increasingly leveraging AI- and ML-enabled solutions, as well as more features in TMS and WMS solutions to sense demand shifts early, identify new fulfillment and delivery strategies, maximize employee productivity, and otherwise avoid the negative supply chain impacts identified by survey respondents.

You said that there was some disruption to your supply chain.
What was the result of the disruption?
Select all that apply.





Sustainability Regains Momentum

Over half (59%) of respondents said their company paused sustainability initiatives due to the pandemic. Of that group, only 16% have fully reinstated them, and another 21% have partially reinstated them. These numbers are similar to Blue Yonder's 2021 survey results.

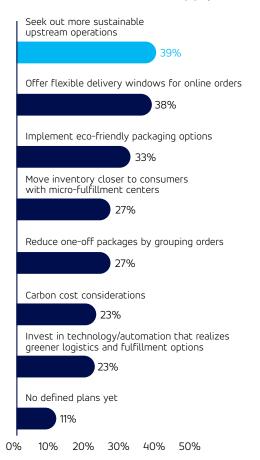
Just 27% of respondents claimed that their sustainability initiatives were not impacted by the pandemic, down from 37% a year ago. This indicates that the continuing volatility of 2021 may have impacted the sustainability efforts of some businesses that were previously unaffected.

However, there are positive developments, as many organizations are beginning to restart their sustainability efforts and implement new strategies. To maximize sustainability throughout the supply chain, 39% of respondents plan to seek out more sustainable upstream operations (materials sourcing, suppliers and manufacturing), while 38% plan to offer flexible delivery windows for online customer orders.

Implementing eco-friendly packaging options (33%), moving inventory closer to customers (27%), reducing one-off packages (27%), considering carbon costs like fuel efficiency (23%) and investing in technology/automation (23%) were also popular responses.

By gathering real-time data and increasing visibility across the end-to-end supply chain, digital solutions support more sustainable decisions as supply chain and logistics executives regain their focus on environmental stewardship. Optimization engines enable decision makers to weigh complex trade-offs as they balance sustainability concerns with their customer service and financial goals.

How do you plan to maximize sustainability throughout the supply chain? Select all that apply.



What is the state of your company's sustainability initiatives?



Nearshoring: An Emerging Trend

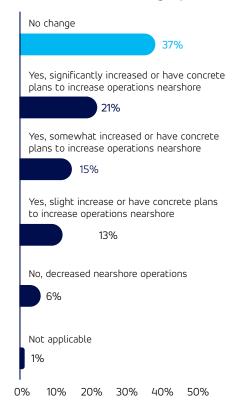
To control costs while still delivering high levels of customer service, many companies are rethinking their foundational network design. One emerging trend for organizations is nearshoring — transferring some supply chain operations to a geographic location relatively close to the company's area. Nearshoring can help reduce transportation costs, as well as the risk of disruptions, by decreasing the overall number of miles products have to travel to reach the ultimate customer.

Half of respondents (50%) said they have increased their investments in nearshore manufacturing operations due to COVID-19 and geopolitical concerns, with 21% saying they have significantly increased or have concrete plans to increase operations nearshore.

Of respondents, 65% have increased the number of nearshore suppliers they're using based on the effects of COVID-19 and geopolitical concerns. Of that group, 26% have increased the number of nearshore suppliers they're using by at least 30%. Just 27% of survey respondents reported no change in the geographic location of their supplier networks.

Given the ongoing nature of supply chain disruption, it only makes good business sense to look at the overall network model — from sourcing and manufacturing through customer delivery — and ensure that it's designed to maximize service, profitability, sustainability and other strategic objectives. Smart decision tools are available to assess and improve not only the network but also the execution within the network, capable of analyzing huge volumes of internal and external data to optimize all outcomes.

In response to the COVID-19 pandemic and geopolitical concerns, have you moved your own manufacturing operations nearshore?



In response to the COVID-19 pandemic and geopolitical concerns, have you increased the quantity of nearshore suppliers that you are sourcing from?





Where Do We Go From Here?

Unfortunately, all signs indicate that supply chain volatility is here to stay. When we compare the results of Blue Yonder's 2021 and 2022 surveys, it's clear that companies are successfully adjusting to ongoing disruptions — but they still face significant challenges in meeting their targets for customer service, labor management, sustainability, cost control, profitability, and other key performance criteria. Disruption management has emerged as one of the most critical competencies for success in today's complex logistics environment.

Blue Yonder Can Help You Get There

There is good news. Just as supply chain challenges have grown, so have the capabilities of digital technologies to master them. Tomorrow's logistics leaders will be distinguished by their ability to not only master volatility, but leverage it to create an enormous advantage over less-prepared competitors.

Enabled by AI and ML, intelligent digital control towers are capable of scanning the end-to-end, geographically distributed supply chain in real time for exceptions – then supporting a collaborative response among all trading partners that's both fast and strategic.

Plans can be pivoted immediately to resolve the situation in the most optimal manner, considering diverse factors and real-time data.

When it comes to executing the new plan, advanced digital solutions have transformed the <u>warehouse</u> and the <u>transportation network</u> into living, breathing, real-time response mechanisms that continue to mitigate the effects of the exception.

In the warehouse, automation and tasking solutions ensure that the resolution is enacted as quickly and cost-effectively as possible. Advanced transportation solutions connect the entire shipping network, including customers and carriers, in real time to drive greater speed, transparency and agility.

Blue Yonder's industry-leading solutions, featuring leading-edge AI and ML, are purpose-built to help companies recognize and minimize supply chain disruptions, no matter where they occur across the end-to-end network. Backed by Blue Yonder, the world's leading logistics teams are positioned to achieve more predictable results, no matter what surprises are delivered in the future.

About the Survey

The Supply Chain & Logistics Executive Survey, sponsored by Blue Yonder, was fielded by a third-party provider and conducted on April 4-5, 2022. The online research effort collected responses from more than 150 C-suite and senior executives across manufacturing, retail, third-party logistics, transportation, and warehousing, with responsibility for logistics and manufacturing operations in the U.S.

Which best describes your primary role when it comes to Supply Chain Management?





Which of the following best describes your title?

24% Managers

and Planners

18% 12% Director

Executive

President

Industry Sector

Option	Responses %
Healthcare Distributor	21%
Retail	19%
Manufacturing ¹	17%
Transportation	9%
Wholesale Distribution	3%
Consumer Packaged Goods	2%
Other	29%

¹ Manufacturing respondents included: Automotive, Bio-Tech, Consumer, Discrete – Industrial, Medical Devices, Pharmaceuticals, Specialty Chemicals, and Other.

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