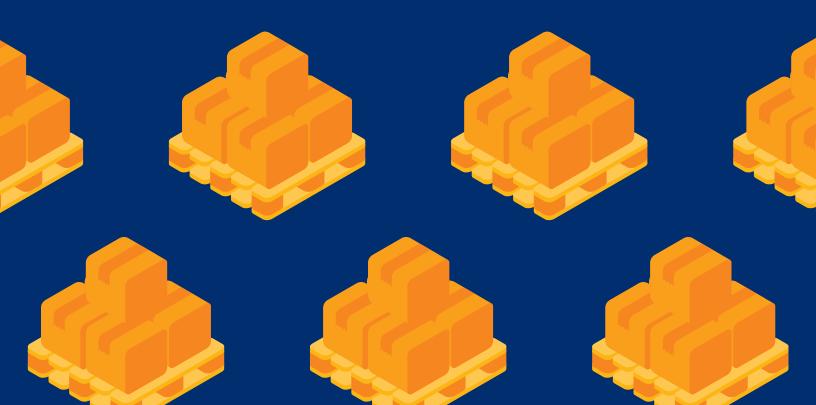
HOW TO USE DATA FOR BETTER TRANSPORTATION MANAGEMENT





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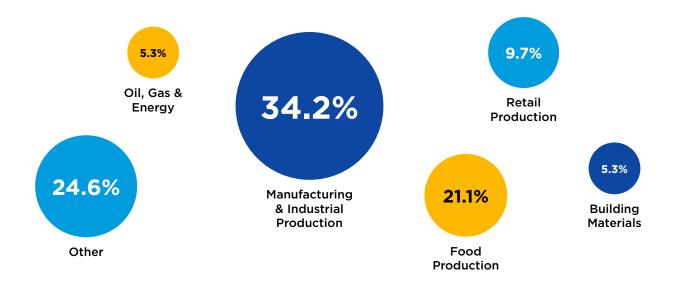
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Overview

The logistics industry has long been characterized by volatility and unpredictability. This has never been more true than it is in the wake of the coronavirus pandemic. After years of upheaval, shippers have set their sights on data-driven strategies to optimize their supply chains and, ultimately, help them better prepare and perform in future market shake-ups.

FreightWaves teamed up with BlueGrace Logistics to survey shippers about their current benchmarking methods, utilization of data for predictive measures and decision making, transportation management operations and preparedness for future volatility.

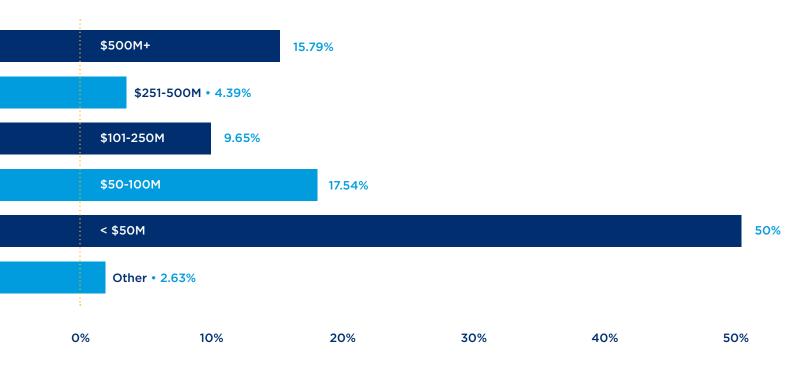
Survey results made it clear that shippers, on the whole, are taking notice of tools like benchmarking and trusted indexes, as well as utilizing data to prepare for the future. It also became clear, however, that a significant minority of shippers are behind the curve. Additionally, even some of the most tech-savvy companies appear to be overlooking important supply chain data and metrics.



FreightWaves gathered responses from shippers across several sectors to create a holistic picture of the industry. A plurality of surveyed companies identified with the manufacturing and industrial production segments (34%), while 21% said they were in food production.

A notable percentage of respondents did not strictly identify with one of the provided categories. Of those who selected "other," represented sectors ranged from packaging production to health care.

What is your estimated annual spend on transportation?



In the same way the survey sought opinions from shippers in different sectors, the company also surveyed shippers spanning a wide variety of sizes.

Exactly half of all survey respondents were small shippers with less than \$50 million in transportation spend per year. Almost 16%, however, work at enterprise shippers that spend more than \$500 million on transportation on an annual basis. The rest fell somewhere in the middle.

Regardless of size or sector, shippers have shown an interest in adopting tools in recent years to make their supply chains more flexible and reliable. Pandemic-fueled volatility has driven companies across the industry to prepare their operations for future shake-ups in the hopes of avoiding the logistical chaos of the past and in the future.

Using Data to Uncover Hidden Costs

Benchmarking, indexes and other data-driven platforms have offered shippers a plethora of opportunities to visualize the effectiveness of their operations and relationships. As companies work to regain a sense of control after years of volatility, they are taking notice of these offerings.

Do you use benchmarking, indexes or data to manage and optimize your supply chain?

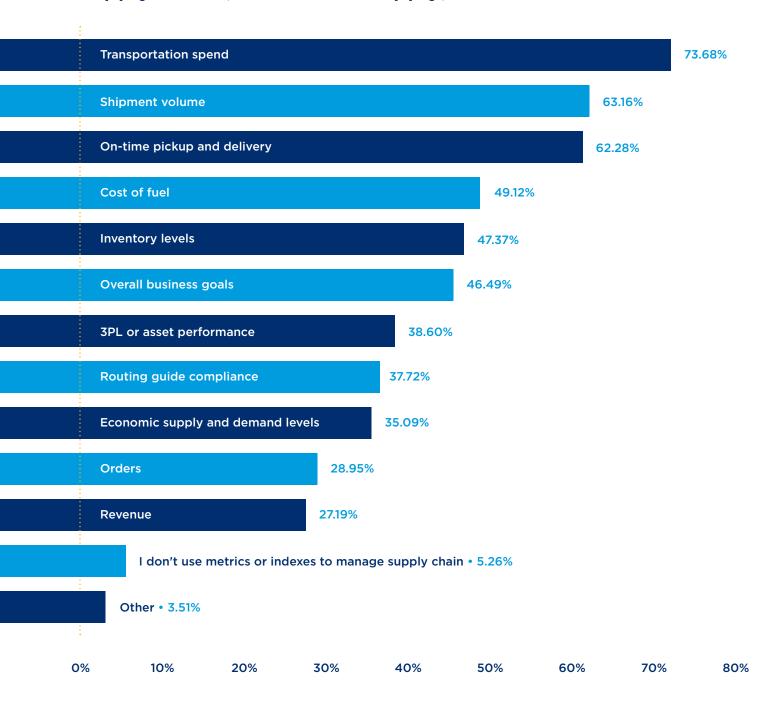


The large majority (75%) of shippers use benchmarking, indexes or other data sources to manage their supply chains on a day-to-day basis. Notably, however, almost 20% of survey respondents said they do not use any of these tools. An additional 5% did not know what data sources, if any, their company utilized.

While most shippers have embraced these information-gathering tools, survey results show that a significant minority of respondents are operating in the dark. Not embracing data-driven platforms puts these companies at a serious disadvantage compared to their more tech-savvy peers. Running a modern business without the tools and data to gauge what is working — or not working — means leaving money and efficiencies on the table. Additionally, not utilizing data to predict upcoming market changes leaves shippers vulnerable to capacity shortages, rate hikes and general chaos.

Of the shippers who are taking advantage of benchmarking and other data-driven offerings, a wide swath of metrics has garnered at least moderate attention.

What key metrics or indexes do you use to manage your supply chain (select all that apply)?



About 74% of surveyed shippers said transportation spend is the primary metric they use to measure their supply chain performance. This makes sense, as most of the changes shippers make in their supply chains are aimed at saving money and reducing spend. Keeping watch over this metric provides a simple way to track the success — or failure — of implemented solutions, and offers clues around the general sentiment of the market.

Shipment volume (63%) and on-time pickup and delivery (62%) were the next most common answers, indicating that shippers are tuned in with both their own shipments and the service they are receiving from providers.

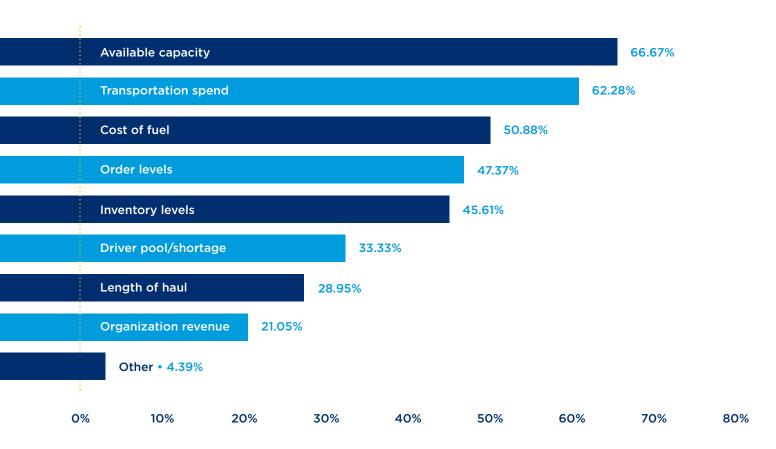
It is important to note, however, that a mere 29% of respondents track "orders" as a means of managing their supply chain. This represents a significant oversight, as order level data — including quantity and frequency — can illuminate large areas of wasted cost.

If a shipper's transportation spend is moving in the wrong direction, there is a strong chance that the problem lies in order frequency and quantity issues, not provider rates. For example, shipping a small amount of freight a long distance on a daily basis is significantly more expensive than shipping a larger amount of freight weekly.

When companies notice small, frequent orders coming through, they should work with their customers to shift to a shipping schedule that allows products to go out on the lowest number of trucks traveling the shortest distance possible. This change will save both shippers and their customers money by reducing the unnecessary transportation spend.

Working with customers to make these types of changes can prove to be a companywide effort. Logistics professionals should work with multiple departments — including sales — to show customers the value of these transportation strategy shifts. Often, there can be a gap between logistics professionals and their overall business. Using data to close that gap allows the supply chain to operate as part of the organization instead of in a vacuum, driving cost savings and efficiencies across the organization.

What benchmarks, indexes or data are critical to predict future market cycles (select all that apply)?



Benchmarking and data indexes are not only useful for making decisions about present-day business operations, they are also critical for predicting — and responding to — future market volatility.

When thinking about future market fluctuations, about 67% of shippers are concerned about tracking available capacity. This makes sense, as subtle capacity shifts can be the first sign of more dramatic changes to come.

Transportation spend (62%) ranked marginally lower in this category, though it was still a common answer. The only other answer to garner a majority of respondents was fuel cost (51%).

Using real-time data to predict near-term or midterm market changes gives shippers a competitive advantage by allowing them to make strategic operational changes ahead of unfavorable conditions, preventing a host of problems that can lead to customer outrage, from late deliveries to frequent price increases.

Shippers Optimistic About Demand

Since early 2020, shippers have weathered extreme ups and downs in consumer demand, punctuated by peaks and troughs influenced by government stimulus payouts and mass job losses.

Swift, dramatic shifts have become less prevalent over the past year, but survey data indicates that consumer demand did fall steadily throughout 2022. This, however, seems to have reversed course during the first quarter of 2023.

How would you rate consumer demand for your company's products now compared to at the start of the last 4 quarters (where 0 indicates as significant a decline as you could expect to see and 10 indicates as significant an increase as you could expect to see)?

Current demand compared to Q1 2022	5.32
Current demand compared to Q2 2022	5.35
Current demand compared to Q3 2022	5.46
Current demand compared to Q4 2022	5.56

The general trend to note here is that shippers said their current demand is higher now than at any point last year, including the fourth quarter. This post-peak jump in demand has buoyed shippers, sparking a sense of optimism for the year to come.

How would you rate expected consumer demand for your company's products at the start of the next four quarters to now (where 0 indicates a significant a decline as you could expect to see and 10 indicates as significant an increase as you could expect to see)?

Q2 2023 compared to current demand	5.68
Q3 2023 compared to current demand	5.96
Q4 2023 compared to current demand	6.2
Q1 2024 compared to current demand	6.12

Although economists — and business leaders across the nation — are wary of a potential forthcoming recession, shippers feel confident that they're in an upswing. Survey participants expect demand for their products to grow steadily quarter over quarter throughout 2023, culminating in a traditional peak season during the fourth quarter.

Shippers expect to see a slight dip in the first quarter of 2024, which would be expected after a typical retail peak around the winter holidays. This expectation is notable because the "peak seasons" of 2021 and 2022 did not follow historical trends. Surveyed shippers seem to be anticipating a return to normalcy this year.



Room for Transportation Management Improvement

Survey takers proved optimistic about consumer demand over the next year. If demand does continue to tick upward, shippers will need to be able to rely on the transportation management strategies, data and tools in place within their companies to meet those demands.

Shippers were asked to rank their satisfaction with various aspects of their existing transportation management on a scale from 0 to 10, with 0 representing complete dissatisfaction and 10 representing total satisfaction.

With every ranking falling between 5 and 7, survey takers appear to be neutral to slightly satisfied with the transportation management at their companies. No single area scored a weighted average over 7, indicating that shippers see at least some room for improvement across the board.

How would you rate your satisfaction with the following aspects of transportation management at your company (where 0 indicates total dissatisfaction and 10 indicates complete satisfaction)?

Automation	5.1
Technology	5.54
Forecasting	5.39
Budgeting	6.25
3PL or asset provider communication	6.35
3PL or asset provider verification	5.98
Ensuring execution service levels	6.51
Securing best possible rate	6.83
Visibility into shipment status	6.27
Network optimization	6.04
Capacity and routing guide compliance	6.53
Claims	5.69
Customer service/experience	6.73

Shippers feel most satisfied with securing the best possible rate (6.83), followed by customer service/ experience (6.73). These aspects — cost and service — are consistently considered the most important across all kinds of relationships, so seeing the highest scores in this area suggests that transportation management providers are in tune with customers' most basic needs.

The rest of the bunch over a 6 weighted average are capacity and routing guide compliance (6.53), ensuring execution service levels (6.51), 3PL or asset provider communication (6.35), visibility into shipment status (6.27), budgeting (6.25), and network optimization (6.04).

With satisfaction ratings grouped together in the middle range, it's possible that shippers likely assign similar value to various aspects of transportation management — from visibility to budgeting. All of these factors are important in meeting growing consumer demands, and shippers are aware that missing one can mean losing business. With that in mind, companies would benefit from choosing third-party providers that have a track record of meeting various types of needs, maintain a deep archive and current set of data, as well as proven dedication to continuous innovation.

While automation and technology received satisfaction scores in the 5s, shippers should clue into these two key areas when determining whether or not a provider is prepared to meet current and future expectations surrounding technological development. If a transportation management provider is unable to keep up with the pace of technology, it will also be unable to continue meeting the shipper's other needs as solutions become more and more automated.

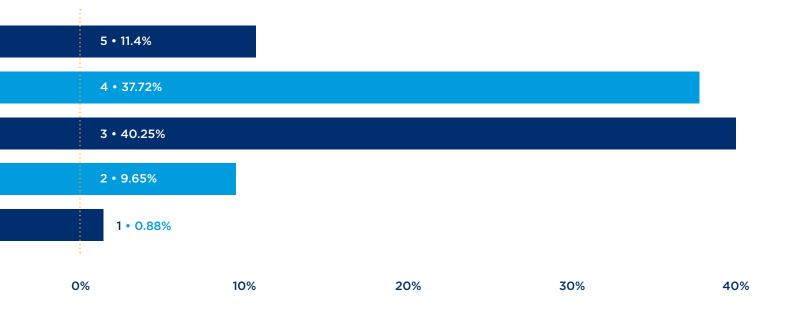


Preparing for a Changing Future

While surveyed shippers acknowledge that there is some room for improvement among their transportation management tools, data and strategies, they also believe they are well poised to handle any upcoming market or economic volatility.

Shippers lean toward believing they're prepared for changes in market or economic conditions. While 3 — neither prepared or unprepared — was the most common answer (40%), the weighted average came in at 3.49 out of 5. Shippers, on the whole, view themselves as being on the prepared side of the spectrum.

How would you rate your company's current preparedness for changes in market or economic volatility (where 1 indicates extremely unprepared and 5 indicates extremely prepared)?



This result is interesting, given the low percentage of shippers taking "order data" into account and the significant minority of survey respondents not relying on data at all. Overall, it appears that shippers may believe themselves to be more prepared for market volatility than they actually are. This confidence could stem, in part, from the fact that most shippers believe demand for their products is on the rise.

Additionally, many shippers have ramped up their tech in response to pandemic-related headwinds, including embracing the aforementioned benchmarking and data offerings. The relatively new addition of these tools likely provides shippers with a sense of confidence. This strategy can offer shippers a great deal of protection, but in order to take advantage of that, they should ensure they are utilizing the best possible data in the most effective ways.

Whether or not these sunny demand predictions pan out, shippers will eventually be faced with an unfavorable logistics environment again due to the innate cyclicality of the industry. Decision makers should keep this reality in mind when assessing operational efficiency, choosing data providers and planning for the future.

Conclusion

Shippers have always had to handle volatility in the marketplace and any of them turned their attention toward building more flexible and reliable supply chains. In order to optimize operations in the present — and safeguard against future volatility — companies must be making informed decisions. Luckily, data-driven tools like benchmarking and market indexes have become much more accessible, allowing shippers to do just that.

Despite the availability of benchmarking and other data tools, almost 20% of shippers are not utilizing these tools at all. This significant minority of companies is already behind the curve and should not wait any longer to start exploring options to catch up. Not having access to these tools, indexes and data is a recipe for lost time, money and customers.

About three-fourths of shippers have already adopted benchmarking and data tools. While these platforms give them a competitive edge, a large portion of them are not using data to its full potential. For example, less than 30% of survey respondents reported using "order-level" data to manage their supply chains. By not utilizing all the metrics available to them, these companies are also leaving money on the table. For them, next steps should include finding a third-party provider to streamline data presentation and digestion or reevaluating existing internal tools and structures.

Data holds the key to success in the logistics industry — today and tomorrow. All shippers should be hyperfocused on accessing and optimizing their data tools and benchmarks ahead of the next market cycle, whenever that may come.

About the BlueGrace Logistics Confidence Index™

The BlueGrace Logistics Confidence Index™ measures expected industry expansion or contraction based on revenue forecasts, inventory levels, and order volumes. A predictive analysis of shippers confidence for the upcoming quarter correlating growth or shrinkage to overall volume of shipments and price of products.

BlueGrace's data analysis platform provides future value and decision-making support using supply chain data, scorecard metrics, artificial intelligence tools, and engineering processes that lean on leading market indicators. The LCI supports improved performance through logistics and transportation operations, strategy, and execution. Data reflects all road transport modes of service including less-than-truckload [LTL] and truckload [FTL]. To learn more about the BlueGrace Logistics Confidence Index[™], click here.