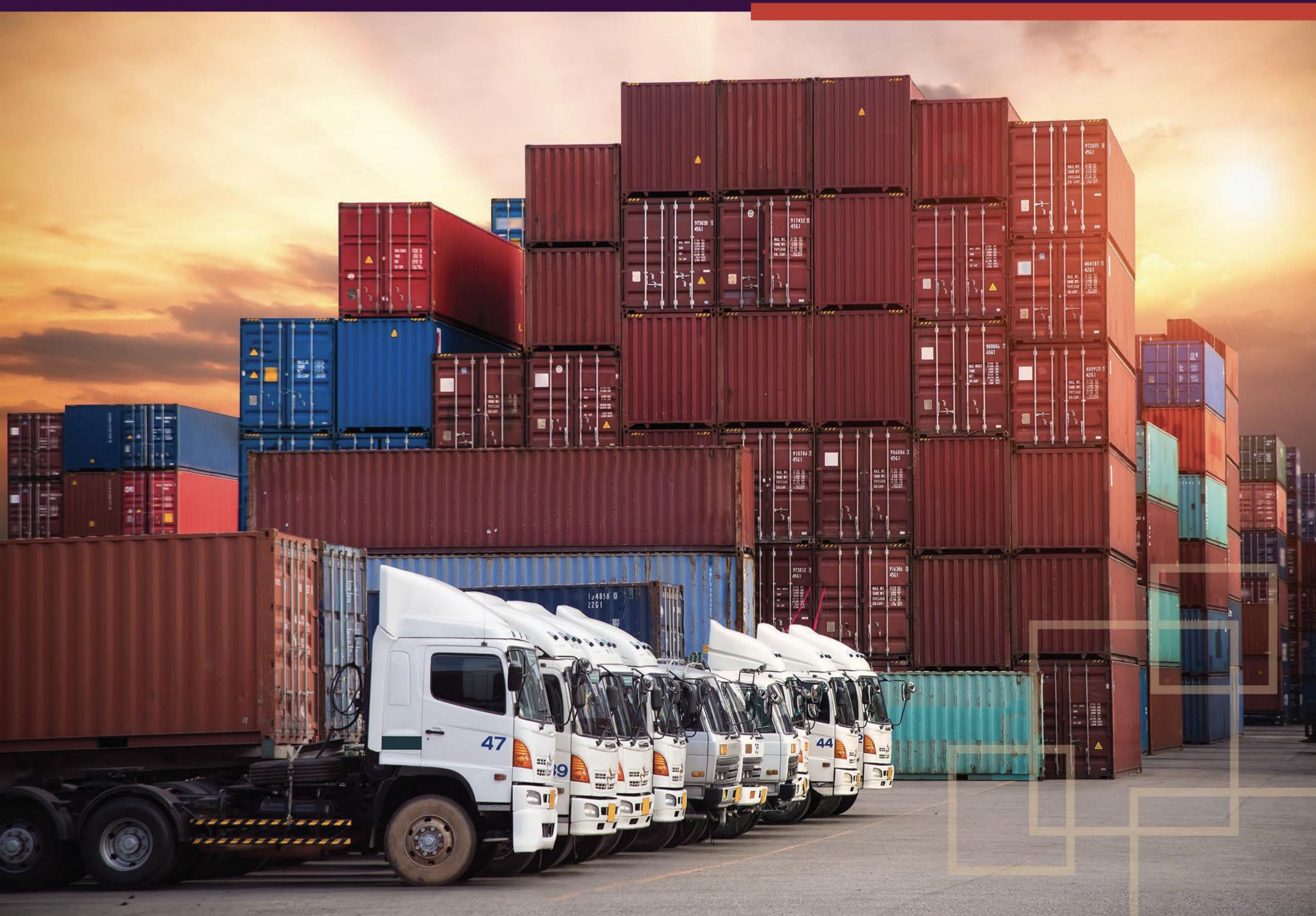


The State of Supply Chain Predictability 2022



Introduction – Managing the Volatility Challenges in Today’s Supply Chains

Since the beginning of 2020, companies of all sizes have been greatly affected by an overabundance of supply chain disruptions, with a global pandemic topping the list. Pandemic-induced economic shutdowns have caused a massive shift in consumer buying behavior, forcing shopping to be done primarily online. As a result, retailers, distributors, and manufacturers have shifted their efforts to concentrate on direct-to-customer and home-delivery orders as omni-channel order management and fulfillment capabilities have become a necessity. All these changes in customer buying habits have created new operational issues fueling higher forecast error rates and incorrect inventory staging, leading to either shortages or excess inventory. Considering this, when it comes to the state of supply chain reliability in 2022, it’s safe to say that it’s borderline *unpredictable*.

One way of navigating through unpredictability is to look to the Best-in-Class. Aberdeen evaluates companies on criteria such as complete and on-time delivery, forecast accuracy, and others (see *Performance Maturity Index: Best-in-Class vs. All Others*), and the organizations who are setting the stage for the rest are considered Best-in-Class. These organizations have had a significant competitive advantage with their omni-channel fulfillment and inventory visibility capabilities compared to the competition. The companies without these capabilities, or All Others, have been forced to address them in some manner to remain competitive.



Market stability has improved, but it's not yet at equilibrium due to policy and mandate declarations that continue to force closures or restrictions on openings. Even though there has been an improvement in responsiveness for most companies, lingering supply chain disruptions are still a significant blocker for many. This eBook examines what companies have had to deal with from a supply chain perspective since the pandemic started, how they have responded to those challenges, and where they see themselves now and for the foreseeable future.

Performance Maturity Index: Best-in-Class vs. All Others



Complete and On-Time Delivery

**Best-in-Class
Companies**
94%

**All
Others**
81%



Cash-to-Cash Cycle

**Best-in-Class
Companies**
10.6 Days

**All
Others**
21.6 Days



Forecast Accuracy at SKU Level

**Best-in-Class
Companies**
84%

**All
Others**
59%



Return on Net Assets (RONA)

**Best-in-Class
Companies**
82%

**All
Others**
12%

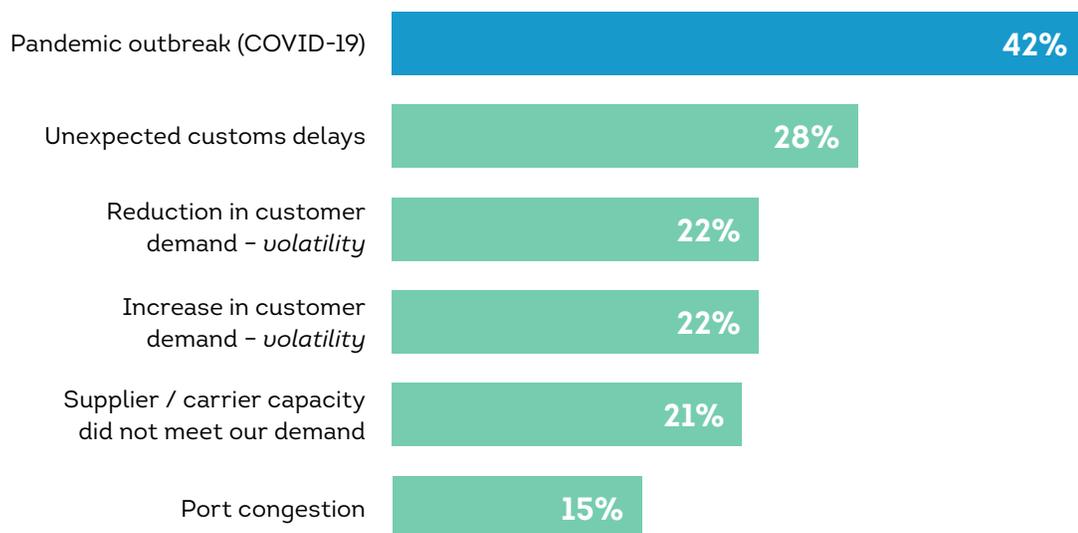
The Best-in-Class are 36% more likely to have the ability to precisely measure the required inventory investment to meet different service levels.

% of respondents, n=271, Source: Aberdeen, October 2021

Supply Chain Disruptions

Supply chain disruptions and economic shutdowns over the last year have dramatically altered customer buying habits. This created more inventory challenges in planning and positioning of products to support order fulfillment. Pandemic-caused economic closures resulted in businesses worldwide to close their doors. This was particularly felt in the retail sector, with restaurants being one of the most notable segments. Products were stranded in shuttered facilities, and those who still had a way to reach their customers found themselves scrambling to locate any products to sell at all. Think of this scenario in terms of closed retail stores vs. their supporting distribution centers (DCs).

Table 1. Leading Causes of Supply Chain Disruptions



n=204, Source: Aberdeen, October 2021

At the time of publication, there are still some closures occurring in various countries based on policy mandates stemming from the pandemic. However, there has been a shift towards other disruptions that are causing a lot of pain, such as shipping container shortages, port congestion, and other global logistics issues. These issues are causing supply shortages and are preventing products from reaching the shelves for many retail and food items. In the case of port congestion, closures, and capacity shortages, the product itself is not the problem. It's the global supply logistics network that is the bottleneck behind the flow of material from source to destination.

Sell Side Challenges – Omni-Channel Issues

The impact of the sudden surge in omni-channel demand and direct-to-customer delivery created the need for robust supply chain visibility and omni-channel fulfillment capabilities. As Figure 1 indicates, at a more granular level, the shift in demand per channel created fundamental inventory staging issues. Forecasting models were very erratic and took 4-12 weeks to adjust to the sudden shifts. The decrease in demand in some areas created excess inventory, while the surge in other areas created shortages. Channel inventory was not staged accurately, nor in the correct packaging for home-delivery. Operationally, the surge in direct-to-customer and home delivery demand required omni-channel order management and fulfillment capabilities to cope with the shift in customer requirements. These demand shifts that created inaccurate demand forecasts and inventory staging issues resulted in costly corrections and mitigation efforts. Many organizations lacked the agility, visibility, and planning capabilities required to keep up with channel inventory needs.

As companies have reopened, the return to new levels of stability have caused (and will continue to cause) channel shifts as the new levels of equilibrium are defined. Continuing lockdowns and policy mandates in some countries and locales can affect the timing of how soon organizations in those areas are able to reach a stable level.

Figure 1: Leading Sell-Side Issues



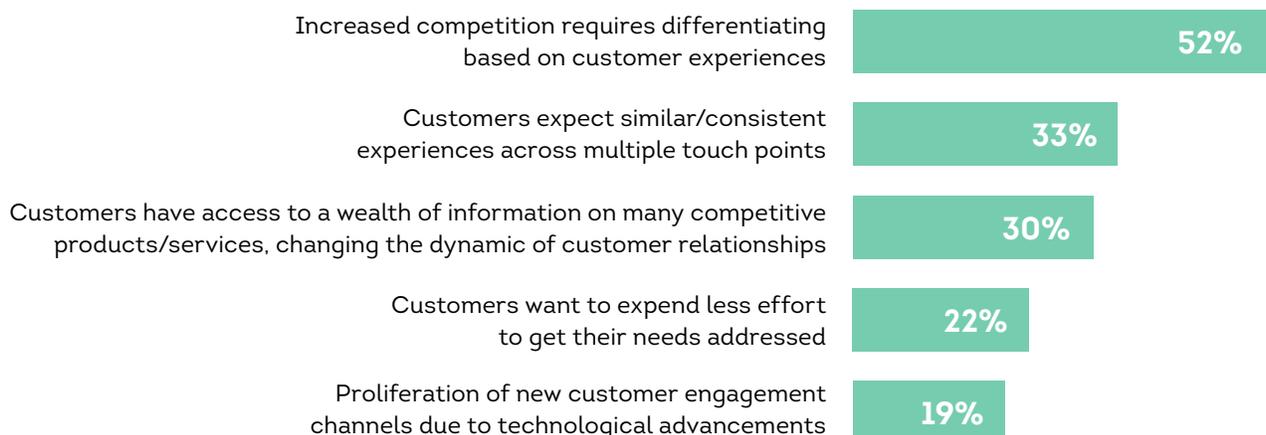
% of respondents, n=271, Source: Aberdeen, October 2021

Customers Drive the Narrative on Expectations

The pandemic-induced shutdowns forced consumers to do all their shopping online, other than for essential services, choosing home-delivery as their preferred shipment option for virtually all items purchased online. These newly acquired habits put consumers in much closer contact with retailers and brand manufacturers on a daily basis for buying and service demands, to which shoppers became accustomed. The result has been a shift in the status quo. Consumers are now driving the narrative more so than ever before, as shown in Table 2. This shift has put additional pressure on the business systems retailers and manufacturers have in place that are needed to cope with these consumer behavioral changes, in addition to the operational challenges created by increased shortages and excess inventory.

Having a closer relationship with the consumer creates opportunities for retailers and brand manufacturers to better understand their end customers. However, all aspects of the retailer/brand manufacturer are on full display to include products, services, operations, and overall reputation they represent for their customers to identify with. To remain competitive across all levels of connectivity, these incremental demands further accelerate the speed of business processes and supporting data needed to make informed decisions for any customer interactions – from the pre-order customer experience to the post-order fulfillment.

Table 2. Customers Are Driving the Narrative on Expectations

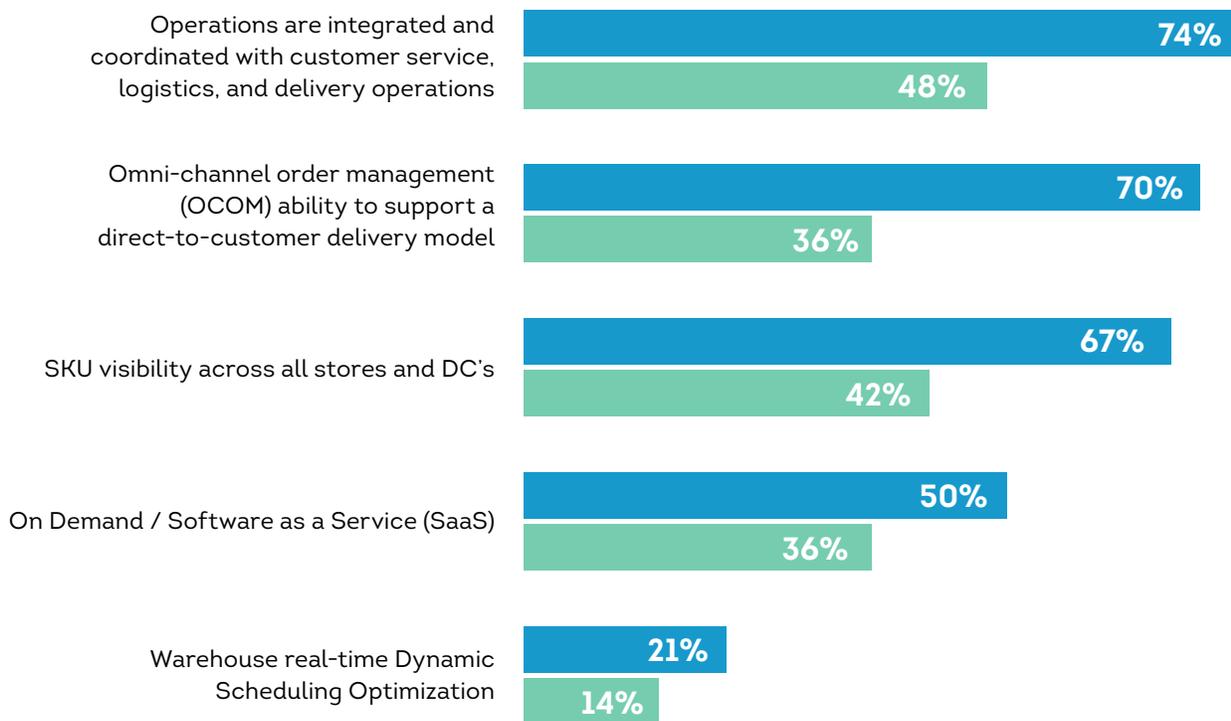


% of respondents, n=670, Source: Aberdeen, October 2021

Addressing Omni-Channel and Home Delivery Explosion

For retailers, manufacturers, and distributors, meeting the increased omni-channel demand for direct-to-customer and home delivery fulfillment requires some unique capabilities to support these needs. Figure 2 identifies the primary requirements to streamline omni-channel fulfillment.

Figure 2: Top Capabilities for Meeting Omni-Channel Demand



n=271, Source: Aberdeen, October 2021

Best-in-Class Companies All Others

The first capability is having finished goods SKU inventory visibility and availability across all stores and DCs at the retail, manufacturer, and distributor level. When the shutdowns originated, it was an “all hands on deck” exercise to fulfill orders and get products to customers. This also required an omni-channel order management system (OCOM) that would support online and call center direct-to-customer shipments. An OCOM is needed to support multiple points and types of order entry options, given the fragmented nature of lockdowns, integrated inventory visibility, and quick access to all shipment/fulfillment costs to support on-line ordering and decision-making. The value of inventory visibility solutions also cannot be overstated. The visibility data enables quick identification of products that are deemed “excess” and trending products that are at risk of becoming slow moving or obsolete. This visibility empowers retailers and brands to take strategic actions sooner in the product lifecycle. Underlying support requires that operations should be integrated with customer service/logistics/fulfillment in order to provide the most intelligent view of customer to fulfillment operations, which could be a critical factor in serving the customer effectively under their new narrative.

Taking advantage of cloud-based SaaS solutions to fill the technology gaps was a widely-adopted approach during the pandemic. This approach addressed three primary concerns that companies were facing at the time: time-to-value/speed of implementation, improved integration capabilities, and affordable pricing options based on a subscription to get the needed functionality vs. a major business system transformation. The improved integration capabilities provide further advantages beyond the connectivity, by facilitating a single system of record for the business and better scalability across all applications.

For those organizations and industry sectors that did have to close or limit operations due the pandemic, the majority also quickly realized that as soon as they reopened, they would be experiencing many of the same problems in reverse, as previous buying habits resumed. However, the new habits have not gone away completely, and some are here to stay. It is also necessary to point out the even though many lockdowns have been lifted, many countries and locales have gone through several cycles of *closure and reopening*, depending on the pandemic itself, their industry sector, political climate, and shifting mandates of operation.



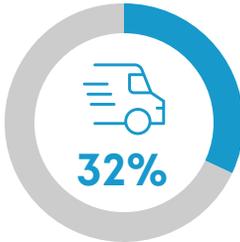
Supply Chain Concerns for the Future

Given the supply chain disruptions and ensuing challenges that organizations have worked through in the past year since the start of the pandemic, companies should also look forward to better anticipate and prepare for what's next. The "top-of-mind" concerns that brands and retailers are facing going forward are listed in Table 3.

Table 3: Top Supply Chain Concerns for the Future



Growing complexity of transportation security and government regulations and the ensuing rising costs



Customers demanding faster and more frequent deliveries



Growing global supply chain sourcing and operations complexity due to increased globalization & low-cost country shifts



Volatility of freight costs and/or fuel cost surcharges (e.g., rates, accessories, fuel costs)



Operational and administrative inefficiencies and costs associated due to incomplete visibility and disparate systems

% of respondents, n=204, Source: Aberdeen, October 2021

One overriding perspective is that supply chain disruptions will continue well into 2022 and may extend well into 2023 for full recovery. These disruptions may be general in some cases, but there may be industry specific disruptions that can occur by product (such as a shortage of chips in the automotive industry). On a general basis, supply chain logistics may take some time to correct itself from a global trade perspective. Port congestion, closures, strikes, or pandemic shutdowns will continue until capacity is restored to handle the volume. For example, on the West Coast, L.A. and Long Beach ports for the U.S. are heavily backlogged in getting containers unloaded and there continues to be port shutdowns in China due to covid-19 breakouts.

The growing complexity of transportation security and government (at any level), as well as the rising costs across the board are top-of-mind for many supply chain professionals. There are many regulatory issues known already, and there will likely be more over time that are yet unidentified. With the consumer in control of the narrative for customer experience and delivery requirements, further demands for new and better ways to serve remain high on the list. Additionally, the growing complexity for global trade sourcing on operations is a big factor, particularly as tensions for tariffs and trade agreements resurface post pandemic. The entire global logistics network is a significant factor as well. Reducing inefficiencies and operating costs due to price volatility amidst economic uncertainty is a big concern, but it is also an area where the Best-in-Class companies have achieved greater success in the past, particularly if it's within their control.



Conclusion

Supply chain disruptions, and more notably the pandemic, have been the driving factor behind the behavior of retail, manufacturing, and distribution organizations. Economic shutdowns, quarantines, and store closures caused a tremendous surge in online ordering, direct-to-customer, and home delivery orders. This surge created operational issues because of the shifts in channel demand, further resulting in forecasting errors and incorrect staging of inventory to meet the new demand. These staging issues created excess inventory for those who lost demand and shortages for those who had a surge in demand in a matter of days. The chaos over the true demand forecast took 4-12 weeks to recover to a level of stability. However, organizations still had to deal with the excess and recover from the shortages, in addition to restructuring their fulfillment operations to support the surge in omni-channel order fulfillment. Further disruptions due to the demand volatility manifested themselves in logistics bottlenecks and physical product shortages as well.

Those companies who have weathered the storm have addressed their omni-channel issues in some manner. The Best-in-Class companies were certainly better prepared initially with their existing capabilities, but their competition needed to add functionality for an omni-channel order management solution and inventory visibility functionality to remain competitive. A cloud-based SaaS approach was commonly preferred.

In addition to the operational challenges, the consumer has taken control of the narrative over demand for new and better services as a result their change in buying habits. This change in narrative has put further pressure on the business systems in place for retailers, manufacturers, and distributors. Understanding the empowered consumer better and improved responsiveness affects the entire enterprise.



After all this, some level of uncertainty still exists as the disruptions are still common, and may continue for some time into 2022, and possibly 2023. Some lockdowns and other mandates are still occurring globally, depending on the country or the industry. The impact of supply chain disruptions and the changing state of the market has put a burden on supply chain visibility, forecasting accuracy, and the effect on inventory staging to support omni-channel fulfillment.

To address operational issues, organizations should be focused on improving their demand signal on the prevention side. In addition, it's crucial to quickly address the excess inventory through continuous mitigation techniques via excess inventory management solutions. The nature of future disruptions may shift, resulting in spot product shortages. Considering this, if companies remain constantly vigilant, and arm themselves with strong supply chain visibility capabilities, they'll be able to better weather the storm through future disruptions and beyond.

