



FROM DISRUPTION TO RESILIENCE: HOW CONSUMER ELECTRONICS SUPPLY CHAINS ARE PREPARING FOR WHAT'S NEXT



DP WORLD



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The consumer tech industry is no stranger to supply chain disruption. The sector has been plagued by varying levels of chip shortages for years; most notably during the COVID-19 pandemic when the popularity of gaming systems and other home electronics skyrocketed overnight, and more recently due to competition with data centers for chip manufacturing capacity.

On top of these component shortages and supplier challenges, pressures such as transportation bottlenecks, labor shortages, tariff and trade uncertainty, and cybersecurity threats have consumer technology supply chain professionals fending off disruption from all sides. These pressures were identified in a recent survey of 107 consumer technology supply chain, logistics and transportation leaders by DP World, a multinational logistics provider, and Supply Chain Dive's Studio by Informa TechTarget. Each of these respondents says their organization experienced at least one supply chain disruption in 2025.

However, the results of the survey also show that these practitioners are not sitting on their heels in the face of complexity and disruption. The data reflects a sector that is actively in the process of adapting itself to this new reality, where disruption has become not an exception, but a certainty. Yet, while consumer electronics stakeholders are taking steps toward resilience, each of those steps also adds another layer of complexity to their supply chains. More suppliers require more coordination, more technology means more point integrations, and more partners require effective communication and collaboration.

The next phase of supply chain resilience for consumer electronics won't be defined by the ability to get through a disruption, but the methods, tools, and partnerships they use to get through it.

DISRUPTION IS EVERYDAY BUSINESS FOR CONSUMER ELECTRONICS

Consumer electronics leads have grown accustomed to a continuous state of volatility, as evidenced by the survey results. In addition to all respondents experiencing at least one supply chain disruption in 2025, 92% say that supply chain disruption is extremely or very important to their organization, and 83% are extremely or very confident that their supply chain can withstand any major disruptions over the next three years.

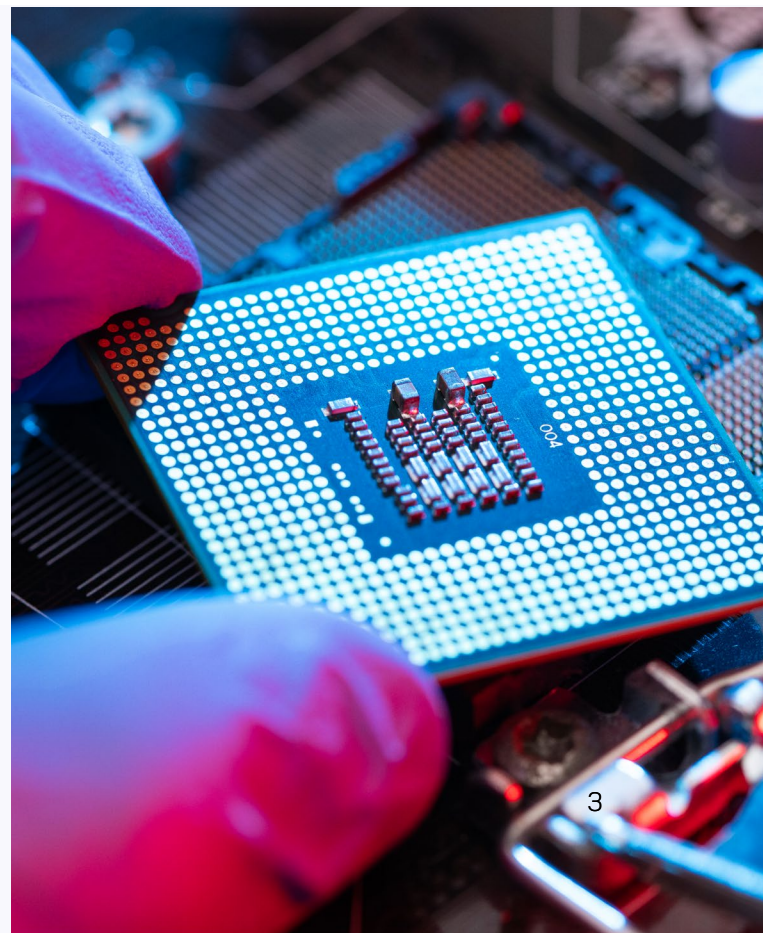
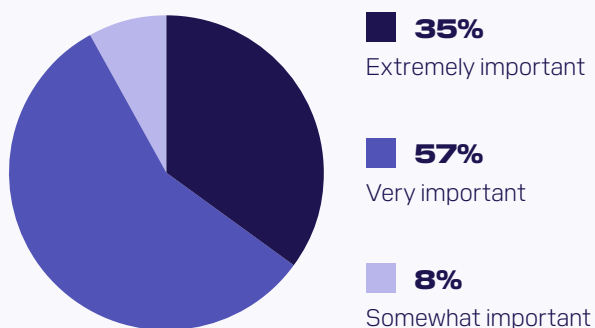
Those two findings might seem contradictory at first glance. After all, if every respondent experienced some level of disruption and nearly all find it important, why, then, is confidence so high?

The answer? Experience. The consumer technology sector has spent years contending with disruptive elements — pandemic-era demand spikes, congested ports, rapid product cycles, geopolitical instability, and shifting tariff and trade policies, to name a few. It's highly unlikely that respondents' confidence comes from a belief that disruption will fade, but through knowing that, they have found their way through everything that has come so far, and they can probably do it again.

“I know a woman who has been running airfreight for 14 years,” says Eduardo Vargas, global director, technology at DP World. “She’s seen everything, so the fuel increases, wars, any sort of disruption, she’s able to work with her team and partners to get through it.”

FIGURE 1

How important is the issue of supply chain disruption to your organization today?





The question, then, is not about whether consumer tech companies will survive. Instead, it becomes about whether they can find ways to manage disruption in a more organized, cost-effective way — especially as AI-enabled devices spur new demand cycles for PCs, phones, wearables, and other hardware.

That level of innovation keeps the sector moving forward but it also makes successful planning harder to achieve. There are no historical demand signals for new products, and product launches can pivot quickly based on customer and market reactions; demand might spike before production is ready and transportation capacity is booked. To keep pace with the rapidly evolving world of consumer tech, companies must build resilience into the way they plan, produce, source and move inventory.

“The newer and more innovative a product becomes, it becomes the hardest to forecast demand for. Think about these robotics companies. They have very advanced hardware and software for equipment to work in a warehouse or assist in your house, but once you have that product, how many are going to be shipped from China into Europe each quarter? Ask those questions of actual robotics executives and often they don’t know.”

- EDUARDO VARGAS, GLOBAL DIRECTOR, TECHNOLOGY, DP WORLD

CONSUMER ELECTRONICS HAS A COMPONENT SHORTAGE PROBLEM

Consumer technology leaders are facing disruptive elements from numerous directions, but component and material shortages exceeded any other response by a wide margin, with nearly half (**49%**) reporting it as their top challenge. When asked to rank challenges by importance, component and material shortages were also rated extremely important by 50% of respondents, with an additional 30% saying they were very important and the remaining 20% referring to them as somewhat important.

The importance placed on this issue is hardly surprising, given the nature of consumer electronics. Production runs require precise inputs and carefully timed supplier deliveries, which takes accurately planned demand cycles. If even one critical component is unavailable, the effects can quickly ripple into production delays, transportation cost increases and launch delays.

FIGURE 2

Supply Chain Disruptions Experienced in 2025

Component and/or material shortages

49%

Transportation bottlenecks or port congestion

38%

Vendor or supplier failures

35%

Labor shortages and/or work stoppages

34%

Cybersecurity incidents

30%

Tariffs or changing trade policies

23%

Lack of inventory or forecasting inaccuracies

18%

Geopolitical instability

14%

Environmental or climate-related events

6%

Extreme weather events

3%

“Tech companies are always juggling a lot. If you’re watching the news, you know there’s a memory shortage and prices are skyrocketing. Not only that, but look at our world today: There are wars, weather events, geopolitics, congestion, port strikes — and all of these things have elements that translate to disruptions.”

- ROBERT CHOY, GLOBAL SENIOR VICE PRESIDENT AND VERTICAL LEAD, TECHNOLOGY, DP WORLD

To address material and component shortages, nearly nine out of 10 (**87%**) consumer technology leaders name changing and/or diversifying suppliers as a top strategy. Limiting inventory is the next highest ranking strategy, cited by about four in 10 (**39%**) respondents.

Diversifying a company’s supplier base does provide options when a critical component becomes difficult to source, but that doesn’t make it an easy solution to implement. Expanding a supplier network means adding more locations, transportation routes, and data. Supplier diversification is meant to increase flexibility, but an organization needs to be prepared to handle the increased complexity that comes along with it.

Supplier diversification comes up numerous times throughout the survey responses.

FIGURE 3 Supplier Diversification

Changing and/or diversifying suppliers to address component shortages

87%

Changing and/or diversifying suppliers to address geopolitical instability

67%

Expanding supplier base to diversify risk

39%

Changing and/or diversifying suppliers to address environmental or climate change risks

34%

Diversifying suppliers to reduce pricing risk

21%



However, networks are not expanding only on the supply side. To manage that additional complexity and reduce the risks it creates, consumer technology leaders are turning to external partnerships.

“When you look at alternative sources and decide to source from other locations, footprint matters. You need partners that provide service in many countries, can handle many different trade lanes, and have a global footprint. That’s what matters for managing that additional complexity.”

- ROBERT CHOY, GLOBAL SENIOR VICE PRESIDENT AND VERTICAL LEAD, TECHNOLOGY, DP WORLD

FIGURE 4

Service Provider/Vendor Diversification

Working with consultants or external partners to evaluate supply chain risks

66%

Increasing use of third-party logistics providers (3PLs)

52%

Implementing shared KPIs and joint planning with vendors

39%

Integrating vendor systems with internal platforms

36%

Outsourcing non-core supply chain functions

35%

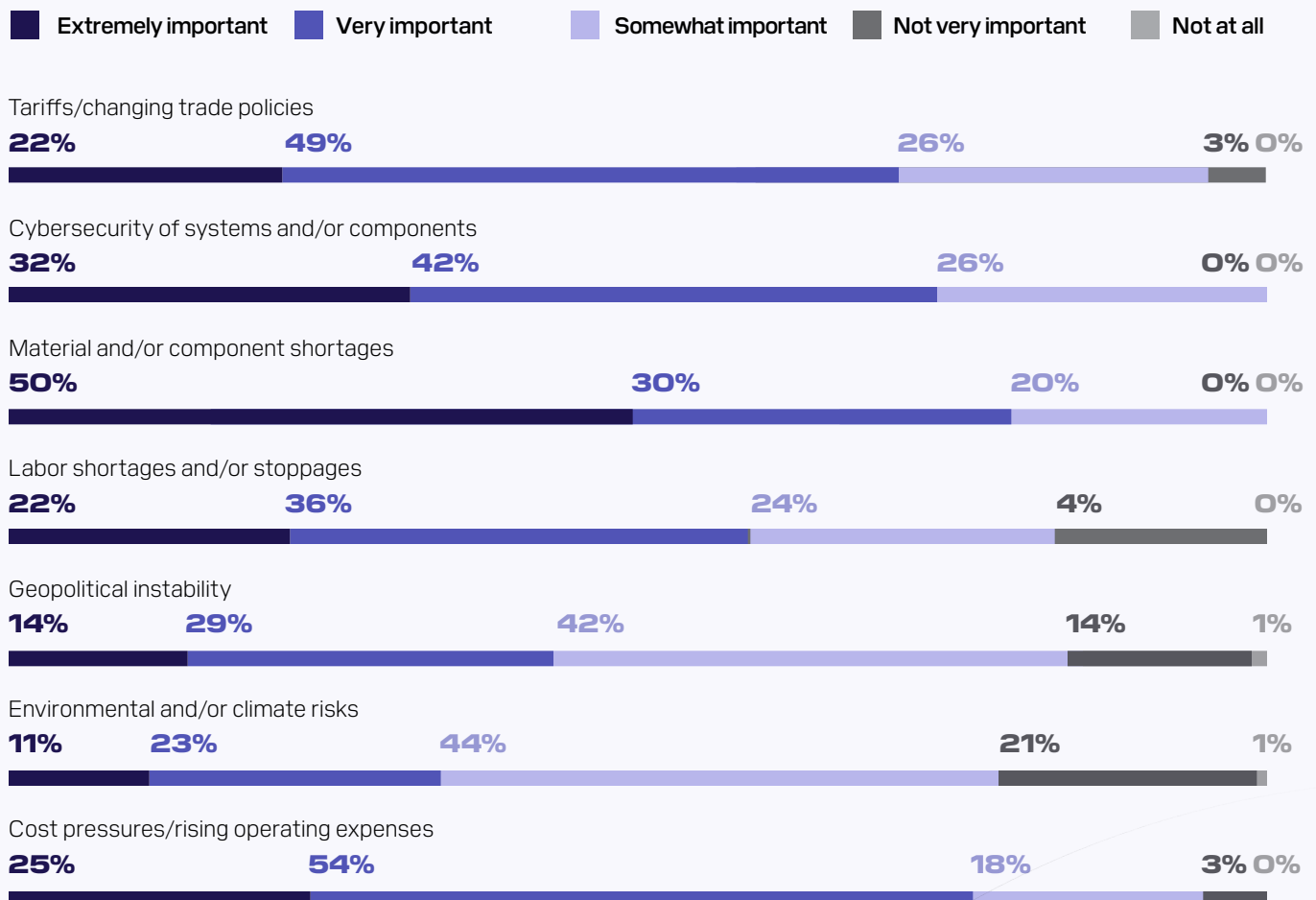
NO SINGLE FIX FOR UNCERTAINTY

Consumer technology leaders are focused on solving problems coming from multiple vectors, which means there is rarely a single solution that can address all of them.

For example, almost 8 in 10 (**79%**) of respondents report that cost pressures and rising operating expenses are extremely or very important to their organizations. Similarly, just over seven in 10 say the same about labor shortages and stoppages (**72%**) and tariffs and changing trade policies (**71%**).

FIGURE 5

How important are the following supply chain challenges to your organization's operations?



The most notable responses to tariffs and trade policies include adjusting supply chain routing (77%), adjusting inventory management practices (69%), and joining trade associations (55%). Less than one in five (18%) are changing or diversifying suppliers to different geographies, and only 3% are nearshoring production.

The story around cost pressures is quite similar, with respondents seeking to optimize routes and modes (47%), implement cost-control technologies such as analytics or AI (36%), adjust inventory management practices (33%), increase automation to reduce labor costs (33%), or outsource non-core operations (30%). Nearshoring or relocating production is only a strategy for 1% of respondents.

These answers may appear surprising, given how many supply chain conversations center on nearshoring as a core resilience strategy. But relocation is not always a realistic strategy for consumer technology companies, who rely heavily on components and raw materials sourced in Asia and other parts of the world. Additionally, factors such as labor availability and cost, manufacturing capacity, tooling and total landed cost all play a part.

“They look at the total cost of supply. You need to buy the materials, manufacture, transport the finished goods to where you consumers are, and add the cost of tariffs, so you understand the total landed cost.”

**- ROBERT CHOY, GLOBAL SENIOR
VICE PRESIDENT AND VERTICAL LEAD,
TECHNOLOGY, DP WORLD**

He adds that moving some categories back to the U.S., such as labor-intensive consumer devices like cell phones, doesn't make economic sense for most consumer technology brands.

“If your phone is made in the U.S., it's going to cost \$1,500, and then add whatever the tariffs are at the time. A lot of consumer electronics just aren't going to reshore back to the United States, and that's probably why it didn't come up in the survey for this category of manufacturers,” Choy adds.





CONSUMER TECH LEADERS DON'T CHASE HYPE

Supply chain leaders are constantly approached by technology vendors offering the latest and greatest AI or automation solution that can solve an organization's hardest challenges. While many sectors have joined the rush toward artificial intelligence without first establishing a good data foundation and clear business use cases, consumer technology leaders aren't jumping on the bandwagon.

Instead, respondents' investments lean toward solutions that will provide more practical operational improvements. They don't want to hand over decision-making yet, but they do want to see around corners and spot disruptions before they cause major issues.

FIGURE 6

Technology Importance by Activity

Inventory management

94%

Demand forecasting

93%

Predicting supply chain disruptions

93%

Predictive maintenance for equipment

82%

Planning cargo/transportation routes

82%

Customer communications

59%

To that end, predictive analytics (**69%**) and cloud-based solutions (**64%**) are fairly mainstream among consumer technology companies, while half (50%) use IoT and/or sensor-enabled visibility solutions, about four in 10 use robotics/automation (**42%**) or digital twins (**40%**), and roughly a third use warehouse management systems (**36%**) and generative AI (**30%**).

It is perhaps notable here that GenAI is at the bottom of this list of importance, though that doesn't necessarily mean that it isn't being used, but only that its contributions are not highly ranked by leaders.

Rather than rushing into AI without checking all the right boxes first, consumer technology leaders likely understand that they need to be building systems, data, and visibility first to make AI more viable.

The promise of AI is significant, but handling adoption properly will take preparation and time. That preparation includes establishing a good foundation for AI technologies by continuing to modernize inventory management, forecasting, and analytics capabilities.

“All of a sudden we have this technology that can piece together all these sources of information and provide a godlike view of the world for companies to match supply and demand better. Many companies see this and the question they ask is: how do we get there? A lot of the technologies we're seeing today are in pilot — they're not fully baked yet. It's exciting, but no company has a perfect plan about how they're going to get there. But that's what also makes it fun.”

**- ROBERT CHOY, GLOBAL SENIOR
VICE PRESIDENT AND VERTICAL LEAD,
TECHNOLOGY, DP WORLD**



MODERNIZATION BARRIERS ARE ABOUT MORE THAN COST

The data support the idea that careful preparation is the primary reason consumer technology leaders are not pushing forward with sweeping changes to their tech stacks. While budgets are usually a major barrier for tech adoption, it is not the top barrier for survey respondents.

The most common roadblock to broader supply chain technology adoption is regulatory concerns, cited by nearly half (**47%**) of consumer technology leaders. Difficulty integrating with legacy systems (**40%**), competing strategic priorities (**38%**) and cybersecurity concerns (**30%**) also all ranked above budget constraints (**28%**).

Consumer electronics companies aren't postponing modernization because they're worried they can't afford new tools, but because they are figuring out how to integrate those tools safely, securely, and practically into existing operations without ripping and replacing the systems that still work.

FIGURE 7

Top Barriers to Supply Chain Technology Adoption

Regulatory concerns

47%

Difficulty integrating with legacy systems

40%

Competing strategic priorities

38%

Cybersecurity concerns

30%

Budget constraints

28%

Unclear ROI

19%

Lack of internal expertise

15%



This strategy should work well with a slow climb in technology budgets. Two-thirds (66%) of leaders expect that their supply chain-related technology budgets will increase by less than 25% through 2030, while 27% expect no change at all. Of note, however, no respondents expect any decrease.

“Not all companies have the right level of investment and the resources to achieve success. At the end of the day, the resources are critical, which is why we see the largest companies as generally more successful than the smaller ones. They don’t always have the money to invest in the latest technology right away.”

- EDUARDO VARGAS, GLOBAL DIRECTOR, TECHNOLOGY, DP WORLD

Moving forward, investments will need to be planned carefully to avoid straining these slow-growing budgets. Companies will need tools and partners to solve multiple problems at once — more visibility, stronger forecasts, resilient routing, improved communications — to make sure they get the most bang for their buck.



THE NEXT LEVEL OF OPTIONALITY IS ORCHESTRATION

Consumer electronics brands are becoming more adaptive over time as they learn to contend with a constant state of disruption in their industry. Through strategies such as supplier diversification, route optimization, expanded logistics partnerships, and technology investments, leaders are making steady progress in improving forecasting, planning, and response. If all these pieces are not connected, however, then adaptability itself can create its own strain.

The next phase of resilience for consumer electronics will depend heavily on an organization's ability to orchestrate the various pieces of its supply chain network. More suppliers, systems, and partners aren't enough if they can't work together when disruption hits or demand shifts.

The strongest supply chains will be those that can spot risk early, enabling them to adjust capacity

and coordinate across partners with minimal manual effort. This capability will matter more and more as product cycles continue to accelerate and AI-enabled devices create new levels of demand that the industry does not yet have context or historical data to model for.

The survey data shows that consumer technology leaders are confident, but not complacent. They understand that disruption is part of the job. Resilient organizations must find the tools and partnerships that will make resilience easier to deploy.

“If we can come in and take care of even one piece of their logistics — a fulfillment center, freight forwarding, over-the-road transportation, PO management — if we can take one piece and do it reliably, that's one less thing they have to worry about.”

- ROBERT CHOY, GLOBAL SENIOR VICE PRESIDENT AND VERTICAL LEAD, TECHNOLOGY, DP WORLD



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