October 2025

# SUPPLY\*CHAIN CONNECT

5 Steps to More RESILIENT **SUPPLY CHAINS** 

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### 5 Steps to More Resilient Supply Chains

New survey shows leaders remain confident in their supply chains, but new risks demand practical steps to stay resilient.

upply chains continue to operate in an environment shaped by constant change. As they grapple with global trade shifts, extreme weather, labor pressures, and rising cyber risks, leaders are working to balance efficiency with the ability to adapt.

A new report from management consultancy Oliver Wyman highlights several practical ways companies can reinforce that balance. The emphasis is less on sweeping overhauls and more on building flexibility and visibility into everyday operations. *In Industry Execs Reveal How To Boost Supply Chain Resilience*, the company says the results of its 2025 supply chain risk and resilience survey, "Navigating Supply Chain Resilience Through An Uncertain Future," reveal a striking paradox: While the nature of disruptions have changed, organizations have maintained a strong focus on supply chain risk and resilience.

"Their strategies have paid dividends," the company says. "80% of respondents now consider their supply chains to be very resilient. Yet despite this confidence, only 4% plan to increase their resilience budgets, and more than a third expect to reduce them."

### **Expressing Concerns**

Companies are also expressing "major concerns" over their supply chain resilience going forward, Oliver Wyman adds, "suggesting that the decline in spending may not simply be a sign that they're content with their current standing."

Here are some other key report findings:

- Only 5% of survey participants said they have a comprehensive resilience strategy in place, which represents a sharp decline from 2024.
- 65% of survey participants described themselves as "vulnerable to very vulnerable" to future risks.
- 98% of companies are willing to invest profits in supply chain resilience.
- 77% of companies plan to take a more proactive approach to supply chain risk as a result of events of the past six months.

"The frequent disruptions of the past few years have made it clear that neither quick, reactive measures nor crisis management are good enough to shore up supply chains," the report states.

"This year, pivoting to becoming more proactive and transparent has become the norm," it continues. "By prioritizing risk identification and implementing scenario planning, creating organizational units dedicated to managing risks, and defining business continuity plans, companies can better anticipate and mitigate risks before they affect operations."

### 5 Steps to Better Resilience

Here are five practical steps that companies can take now to improve their supply chain resilience:

- 1. Diversify suppliers rather than regionalize. The executives surveyed say pulling away from global markets is not the best response to disruption. Instead, companies are diversifying international supply chains by adding alternative sources in different regions. Oliver Wyman says this approach reduces dependence on any single location and helps companies comply with rules that require certain products or components to be sourced locally.
- **2. Take incremental steps.** Smart organizations are taking small actions like adding nodes, expanding secondary capacity or securing backup suppliers. Oliver Wyman notes that these incremental moves create flexibility without the costs or disruption of a major realignment.

- **3. Conduct end-to-end assessments.** The consultancy tells companies to evaluate supply chains in full, from sourcing through distribution. These reviews identify weak links and help leaders target investments where they will matter most. Companies that complete assessments are better positioned to respond when the next disruption occurs.
- **4. Prepare for shifting disruption.** The nature of disruption has changed. While the pandemic and material shortages dominated in prior years, current risks include trade conflicts, tariffs, labor challenges and climate events. Oliver Wyman stresses the importance of scenario planning that accounts for multiple possibilities, and not just the crisis of the day.
- 5. Treat resilience as a discipline. The companies making the most progress combine near-term flexibility with longer-term structural improvements. They build continuity planning and regular reviews into everyday operations. The companies that prioritize resilience will be better prepared for whatever comes next.

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### **Top Supply Chain & Logistics News**

Drone deliveries, NVIDIA's latest deals and an uptick in supply chain cyberattacks made headlines in September.

September brought both opportunities and challenges for supply chains. Uber took a step into the future with its first drone delivery partnership, while NVIDIA continued its push to shape the AI infrastructure market through major new deals.



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### From Reactive to Proactive: Building Smarter, More Adaptive Logistics

Discover how modern logistics technologies enable distributors to adapt swiftly to demand fluctuations, reduce operational waste and improve customer satisfaction in an increasingly complex environment.

he foodservice distribution and logistics industry has reached a tipping point. Shifts in consumer behavior, fluctuating demand, rising operating costs and increasingly complex delivery networks are making it impossible for companies to thrive by relying on the old way of doing things. For decades, many distributors operated reactively by putting out fires as problems emerged. But in today's volatile environment, firefighting is no longer sustainable.

Instead, logistics leaders are embracing a proactive, datadriven model. With advanced optimization, real-time visibility and intelligent delivery zone design, distributors are not just protecting margins, they are redefining efficiency, reliability and service.

#### From Reactive to Proactive

Historically, foodservice distributors and logistics providers relied on static plans, manual workarounds and last-minute fixes. This reactive model inevitably led to wasted miles, underutilized fleets, missed service windows and overworked drivers. Modern optimization tools are enabling a fundamental shift. By blending advanced route and load planning with

predictive analytics, organizations can anticipate challenges and adjust proactively.

The results are transformative, in which route and load planning reduce mileage, cut fuel consumption and lower carbon footprint. Smarter truck utilization ensures fleets are maximized, eliminating unnecessary trips and improving capacity efficiency. Distributors can now deliver with greater precision, offering reliable delivery windows that strengthen customer trust

At the same time, driver productivity improves, as efficient schedules reduce overtime and fatigue. When demand or orders fluctuate, advanced tools allow immediate adaptation, helping companies respond quickly without disrupting operations. Just as importantly, cross-team alignment becomes easier, since planning, sales and service teams all operate from the same set of real-time data.

The transition to proactive, analytics-driven operations is no longer aspirational—it is actively transforming distribution networks today.

#### Control Towers as the Nerve Center

Even the best-laid plans can unravel without real-time visibility. That's where control tower platforms come in. Acting as the nerve center of logistics operations, they provide live oversight of fleet and delivery performance.

Instead of waiting for post-shift reports, logistics leaders can monitor and respond to issues as they unfold. Fleet monitoring provides real-time tracking of vehicles, routes and deliveries, while proactive problem resolution ensures delays are addressed before they affect customers.

Control towers enable dynamic routing adjustments, instantly reassigning deliveries or rerouting vehicles in response to disruption. They also centralize communication, giving dispatchers, drivers and customer service teams access to updated information in real time. Perhaps most importantly, control towers allow companies to monitor service performance during execution rather than relying on post-analysis.

This proactive approach moves companies away from firefighting and toward service assurance. Even when external factors disrupt operations, control towers help maintain on-time performance and safeguard customer satisfaction.

### **AI-Driven Zone Planning**

While real-time oversight is critical, efficiency also depends on strong structural design. This is where zone planning tools come into play. AI-powered systems allow planners to build smarter territories and delivery schedules before execution.

Balanced zone design reduces travel time and ensures that driver workloads are distributed fairly. Visit day optimization aligns delivery schedules with demand patterns and operational capacity, minimizing strain on resources during peak periods. Scenario testing enables planners to simulate the impact of changes in fleet size, delivery frequency or territory adjustments before they are implemented, helping organizations avoid costly mistakes. And by seamlessly integrating long-term zone planning with daily routing strategies, companies can ensure consistency between design and execution.

Using simulations and predictive analytics, planners can uncover inefficiencies that might otherwise go unnoticed and adjust for operational realities.

### **Adaptability in Complex Environments**

Today's distribution networks are defined by volatility. Consumer behavior can change overnight. Weather events can disrupt supply chains and labor shortages can strain delivery capacity. In this environment, adaptability is paramount.

The organizations that succeed are those that combine optimization for efficiency, real-time visibility through technologies like control towers and AI-driven zone planning. Together, these technology-driven strategies empower companies to respond immediately to disruptions without sacrificing service. They allow resources to be dynamically adjusted to meet changing market conditions, reduce operational waste while strengthening reliability and transform logistical challenges into opportunities for competitive differentiation.

This integrated approach does more than cut costs—it provides the agility needed to maintain strong service levels in a constantly changing market.

### From Pressure to Advantage

Foodservice and logistics distribution will always be challenging. Narrow margins, unpredictable demand and complex delivery requirements are realities of the industry. Yet these same challenges are creating opportunities for forward-looking organizations.

By adopting a proactive, analytics-driven model, companies can control operating costs while reducing fuel use and emissions. They can deliver consistent service performance that earns customer loyalty, while also strengthening sustainability through smarter routing and utilization. Balanced schedules reduce strain on the workforce, improving overall productivity and morale.

For distributors, the shift from reactive problem-solving to proactive, data-driven operations is no longer optional. It is becoming a competitive necessity, one that determines not just today's efficiency but tomorrow's survival.

As distribution networks continue to evolve, companies must ask themselves whether they are still reacting to problems or actively shaping their future. The answer will determine who thrives in the next era of logistics.

Logistics is no longer about firefighting. It's about building smarter, more adaptive networks that transform complexity into opportunity. The companies that act now will set the standard for what modern logistics can and should be.

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### SUPPLY>CHAIN CONNECT



## Why Same-Day Delivery Is Essential and How Retailers Can Make It Work

Achieving same-day delivery requires a strategic approach encompassing inventory mirroring, advanced forecasting, agile network design and seamless system orchestration.

n today's hyper-competitive retail landscape, delivery speed has become a critical battleground. What began as a differentiator offered by tech-forward leaders like Amazon has quickly morphed into a standard expectation for most consumers. Customers now expect fast, reliable and low-cost (or free) delivery—and they're not shy about switching brands to get it.

This shift isn't just about customer delight—it directly impacts revenue. Faster delivery windows increase conversion rates, especially for time-sensitive categories like grocery, health and household essentials. Shoppers are also more likely to consolidate baskets and increase order value when confident about fulfillment speed.

For retailers, the implications are clear: same-day delivery is no longer a luxury—it's an operational necessity. The challenge now is not whether to offer it, but how to deliver it in a scalable, profitable and customer-centric way.

### **Key Challenges and Considerations for Retailers**

Delivering on the same-day promise isn't just about hiring drivers or opening new fulfillment centers. It demands a complete rethinking of how inventory, systems, infrastructure and customer experience are orchestrated. Retailers who have successfully implemented same-day delivery at scale all excel in five foundational areas.

#### 1. Inventory Mirroring Across the Network

To fulfill orders quickly and profitably, retailers must ensure that the right inventory is placed close to the customer. This means moving beyond centralized distribution centers and mirroring high-velocity SKUs across stores, micro-fulfillment centers (MFCs) and sortation hubs. This strategy allows for faster picking and reduces dependency on long-haul transportation, a critical bottleneck in same-day fulfillment.

Walmart is a prime example of success in this area. With over 4,700 stores across the U.S., it uses its store network as

forward-positioned inventory hubs. By identifying high-demand SKUs using real-time sales data and forecasting models, Walmart places the right products closer to the customer, minimizing lead times. In fiscal year 2024, Walmart delivered 8.3 billion units via same-day or next-day service, a testament to the effectiveness of its inventory strategy.

#### 2. Advanced Forecasting and Replenishment

Hyperlocal demand forecasting is the bedrock of same-day delivery. It requires granular insights at the ZIP code or even neighborhood level to determine what products should be stocked and in what quantities at different nodes across the network.

Amazon leads the way with predictive fulfillment models that utilize customer browsing behavior, regional trends and AI-powered demand forecasting to anticipate what shoppers will need before they click "Buy." The company's "anticipatory shipping" model enables it to pre-position inventory across its extensive network of fulfillment and sortation centers. This system helped Amazon deliver over 9 billion items the same day or next day globally in 2024.

### 3. Agile Network Design

A fast and cost-effective delivery promise hinges on a nimble, modular network. This involves the strategic deployment of different facility types including sortation centers, microfulfillment centers (MFCs), urban fulfillment centers and the use of retail stores as local fulfillment centers.

Target exemplifies agility in network design. In addition to the fulfillment centers, the retailer fulfills digital orders from stores, converting backroom space into highly efficient pick-and-pack zones. In select metro areas like Minneapolis and Atlanta, Target has also rolled out compact sortation centers that consolidate orders from nearby stores and route them intelligently for same-day or next-day delivery. This hybrid model enables dense urban fulfillment while keeping last-mile costs under control.

Walmart has also embraced this approach by investing in next-generation sortation centers that work in tandem with its stores. These centers sort packages by ZIP code and consolidate multiple orders for optimized driver routes, improving both delivery accuracy and cost per drop.

#### 4. Technology Integration and Orchestration

Speed at scale cannot be achieved without seamless orchestration between systems. Retailers need advanced Order Management Systems (OMS), delivery routing engines and real-time inventory visibility to dynamically allocate orders to the right node and driver. Additionally, AI-powered

delivery promising engines are essential to provide customers with realistic and reliable ETA windows at checkout.

Amazon uses sophisticated internal software to determine not just the fastest route, but the most cost-efficient fulfillment path. It also employs advanced machine learning models to adjust routes dynamically based on real-time events such as weather, traffic or driver availability. Similarly, Walmart's Spark Driver Platform and Last Mile Delivery Engine orchestrate millions of deliveries weekly through automated batching, routing and re-routing logic.

#### 5. Customer Experience and Exception Management

The final mile doesn't end at delivery. It ends when the customer is satisfied. That's why exception handling, real-time communication and post-delivery support are critical components of a successful same-day program.

Shipt, owned by Target, differentiates itself with a hightouch delivery experience. Its network of personal shoppers not only delivers but also shops, substitutes items and communicates with customers throughout the process. This model is particularly effective in categories like grocery, where precision and substitution decisions greatly impact satisfaction.

Retailers also invest in live tracking, photo proof-of-delivery and flexible delivery preferences to give customers a sense of control. These small touches can significantly reduce anxiety and increase brand loyalty.

### How Retailers Can Build or Leverage Delivery Capabilities

While large retailers like Amazon, Walmart and Target have built robust in-house infrastructure to support same-day delivery, most other retailers lack the technology stack, fulfillment expertise or last-mile logistics capabilities to replicate this internally. Fortunately, the emergence of third-party platforms has leveled the playing field.

Today, even mid-size and regional retailers can offer a premium, same-day delivery experience by tapping into end-to-end platforms without having to build proprietary systems or fleets. Some of these providers focus on delivery-only models by offering flexible delivery capacity and routing tools, while others offer a full shopper-plus-delivery model that handles both in-store picking and last-mile fulfillment. In addition, many provide integrations with order management systems, customer communication tools and real-time visibility.

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### The Podcast Channel for Supply Chain Professionals

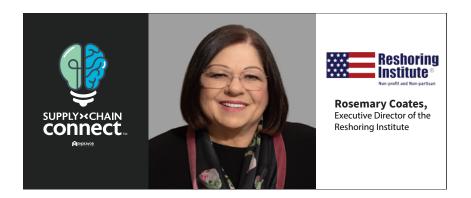
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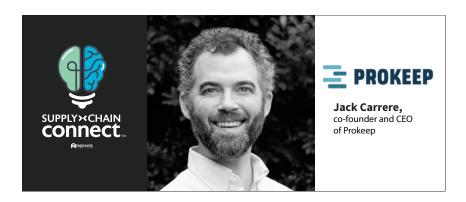
Rosemary Coates of the Reshoring Institute breaks down the complex world of global trade as she covers tariffs, manufacturing and an unpredictable market.



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### The Landscape of Global Logistics and Network Optimization

Paul Baris breaks down the complex dynamics currently reshaping global supply chains from the unusual disconnect between freight demand and shipping costs to the ongoing uncertainty around tariffs.



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### How Technology is Reshaping Distribution

Jack Carrere discusses the transformative role of AI and automation in distribution as the industry continues to shift toward an increasingly digital marketplace.

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### 5 Ways Lean Six Sigma Supports Supply Chain Resilience

From redefining metrics to smarter buffer strategies, Lean principles give leaders tools to build flexible and reliable operations.

t's no secret that Lean Six Sigma is an effective way to cut waste, streamline processes and improve quality. It blends Lean's focus on efficiency with Six Sigma's emphasis on reducing defects. Companies now use the approach across supply chains to solve problems, control costs and keep operations moving.

"Supply chains have always lived with disruption, but the scale and speed of recent shocks have exposed deeper weaknesses: brittle networks, shallow risk buffers and overreliance on linear processes," Villanova University points out in a new report on the tight connection between supply chain resilience and Lean.

"The question many leaders are asking is not how to return to normal, but how to design operations capable of absorbing volatility and sustaining performance," the university continues. "That shift from recovery to resilience demands a different caliber of process leadership."

### **Managing Volatility**

Supply chain disruption isn't a new problem, but the frequency and scale of recent shocks have made resilience a top priority for most organizations. "Supply chain logistics have always been finely balanced systems, dependent on precise timing, rapid pivots and slim margins," Fleetpoint's Mark Salisbury states in "Building a resilient supply chain amid unparalleled disruptions."

"Over the past decade, these systems have faced an unrelenting series of disruptions that have exposed just how fragile global supply networks can be," Salisbury continues. "From factory shutdowns and flash flooding to forced labor scandals, trade wars, canal blockages and supplier collapses, these crises have redefined the way procurement and supply chain leaders think about risk."

In its report, Villanova highlights how Lean Six Sigma methods can be applied to strengthen resilience. It says leaders, in particular, need tools that spot fragility early, manage variability and build flexibility into their systems. Lean Six Sigma provides that framework by:

- 1) **Redefining success metrics.** Traditional key performance indicators (KPIs) track throughput, delivery and defect rates. Resilience requires new indicators such as supplier redundancy, buffer utilization and lead-time elasticity. These metrics help leaders see weak spots before they become failures.
- 2) Using data to uncover variability. The combination of Six Sigma's DMAIC framework (define, measure, analyze, improve and control) and advanced analytics can help companies pinpoint systemic vulnerabilities that may be overlooked in day-to-day reporting. Instead of reacting to breakdowns, supply chains can anticipate patterns and prepare responses.
- 3) **Designing for adaptability.** Design for Six Sigma (DFSS) is a methodology used to create new processes or products from the ground up with quality, efficiency and resilience built in from the start. According to Villanova, DFSS builds flexibility into processes at the start. Embedding risk management in the design phase, for example, makes supply chains better able to flex under pressure rather than having to scramble after disruption has already impacted operations.
- 4) Extending continuous improvement to leadership. Villanova says Master Black Belts can push Lean Six Sigma beyond the shop floor and into governance. This helps ensure resilience practices stay in place through leadership changes, market shifts and strategic pivots, it adds.
- 5) Applying Lean thinking to buffers and beyond. All companies know that stockpiling inventory is costly and often ineffective. Lean Six Sigma reframes inventory around service continuity, using data to place targeted buffers, rebalance just-in-time and just-in-case strategies, and build real-time visibility. The same approach can be used for processes like freight routing, supplier rationalization and demand planning.

### **Leading Through Turbulence**

Ultimately, Villanova says supply chain leaders have to be able to design processes that hold up under pressure, and it sees Lean as a viable tool for achieving that goal. "Disruption isn't going away," it adds. "The professionals who lead through that turbulence will not be the ones with the longest resumes of past projects, but the ones with the deepest mastery of resilient process design."

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For retailers, this represents a turnkey way to meet rising customer expectations while avoiding heavy investment and operational risk.

#### Walmart's GoLocal

Walmart's GoLocal platform powers white-label last-mile deliveries for retailers like Home Depot, UrbanStems and even small regional businesses. For retailers without their own

delivery network, GoLocal plugs that gap using Walmart's Spark driver ecosystem. It also integrates with client OMS and POS systems to streamline same-day or next-day delivery.

### Target's Shipt

Shipt offers curated delivery from a wide range of retail partners including CVS, Petsmart, Office Depot and more. Because Shipt includes not just delivery but also trained personal shoppers, it's especially valuable for retailers that lack in-store labor or digital picking workflows. It brings a human touch ideal for categories like grocery, flowers or pharmacy where quality and substitutions matter.

Instacart and DoorDash

Both Instacart and DoorDash have evolved from gigeconomy delivery apps into full-stack fulfillment partners. These platforms are especially powerful for retailers who don't have the staffing or systems to manage order picking, routing and customer service internally.

Instacart uses trained shoppers to pick and pack orders directly from store shelves, making real-time decisions about substitutions and messaging customers through the app. This ensures quality and speed, even for retailers without internal picking processes or advanced OMS.

DoorDash has expanded its capabilities allowing its network of Dashers to both shop and deliver. For partners like Walgreens and CVS, Dashers follow structured workflows for locating and scanning items, effectively functioning as temporary in-store labor. This reduces the need for retailers to hire and train additional staff while still ensuring order accuracy and speed.

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# 6 Risks that Should be on Your Company's Radar Screen in 2025

Practical actions supply chain leaders can use to reduce risk, control costs and keep goods flowing.

yber threats are increasing, global trade patterns are shifting and extreme weather is testing supply chains. Risks that once operated independently now overlap in ways few could have predicted. The challenge is real, but so are the opportunities for companies that adapt quickly and think ahead.

Aon's new *Global Risk Management Survey* reveals major changes in the operational risk landscape. Cybersecurity remains the top concern, for example, but geopolitical instability, climate exposure and workforce pressures are all moving up the list.

"We've entered a new era of disruption shaped by technology, trade, weather and workforce change," the global professional services and risk advisory firm notes in the report. "Organizations that connect these risks across their business will be better positioned for the future."

### Don't Ignore the Overlap

The connections between risks are getting harder to ignore. Cyber incidents now affect trade routes, for example, extreme weather impacts production and global politics can disrupt everything from sourcing to sales. Aon says these risks don't happen in isolation anymore. They stack up, overlap and hit faster than before.

"These top risks are systemic and interconnected," it says. "Technology, geopolitics, climate and workforce pressures now influence one another in ways that demand a more integrated approach to risk management."

For companies managing global operations, the message is clear: Risk silos are gone. Technology, trade, weather and workforce issues are converging fast, and the organizations that plan holistically will have the best shot at staying ahead.

#### Six Risk Factors to Watch

Aon's survey highlights the key forces shaping how companies operate, invest and plan for the future. Each one presents a potential threat, but also an opportunity for organizations that stay flexible and forward-looking. Here are six that all companies should be watching and responding to in 2025:

- 1. Cyber risk. Still the top concern globally, cyber threats continue to expand beyond IT departments. Rapid adoption of artificial intelligence (AI), automation and cloud platforms has multiplied exposure points. Aon warns that "the scale and complexity of attacks are increasing" and pushing companies to integrate cyber resilience into both strategy and culture. "Organizations that integrate cyber awareness into their culture and strategic planning, use AI for both cyber defense and innovation, and implement comprehensive business continuity plans," it adds, "are better equipped to create value and sustain resilience."
- 2. Market volatility. Trade tensions, conflicts and shifting alliances are reshaping global markets and making them more unpredictable. Aon says companies that can read market signals early and adjust quickly will be in the strongest position.
- **3. Supply chain disruption.** Closely linked to geopolitical and climate risks, supply chain disruptions remain a costly and recurring problem for many organizations. Some viable solutions include more diversified sourcing efforts, building regional resilience and using data analytics to anticipate choke points before they happen.
- **4. Climate and weather risk.** Climate change has moved from a long-term issue to a financial reality. In fact, Aon estimates insured losses from weather-related events hit \$100 billion in the first half of 2025 alone. Integrating climate modeling into investment and location planning is now a core business need, it notes, and is no longer just a compliance exercise.
- **5. Economic and competitive pressures.** As markets shift and costs rise, competition has jumped from number 10 to number five on Aon's global ranking. Rising costs and tighter margins continue to test profitability, it says, and many organizations are rethinking pricing, sourcing and production strategies.
- **6.** Workforce and talent challenges. Talent shortages and higher labor costs are impacting most industry sectors right now. And while this risk didn't rank high on its listhis year, Aon describes workforce risk as an "underrated driver of financial loss" and says companies that invest

in skills, data and culture alignment have the best chance of staying competitive. "Human resources (HR) leaders should be involved in all core areas of a company's strategy so that workforce-related risks and emerging trends can be assessed and mitigated at an enterprise level," Aon advises.

### **Managing the Changing Dynamics**

Looking ahead, Aon expects the business landscape to remain dynamic, but the power to lead change—not just respond to it—is within every organization's reach. "By building resilience on a foundation of insight, agility and collaboration," it concludes, "today's business leaders can turn disruption into a catalyst for long-term success."

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### Other Players

Beyond these providers, other players like Uber Eats and Gopuff are also expanding their roles in retail fulfillment offering either delivery-only or shopper-plus-delivery models. While their scale may differ, their presence underscores the growing ecosystem of platforms retailers can leverage to stay competitive

In short, these partnerships let retailers "rent" the operational playbook of much larger players, bridging the capability gap and allowing them to stay competitive without building everything from scratch.

### The Road Ahead: What Success Looks Like in Same-Day Delivery

Same-day delivery is not just a logistics challenge. It is a strategic differentiator. It shapes the entire customer journey from conversion to loyalty, and forces organizations to elevate their operations across forecasting, fulfillment, systems and service.

Retailers that succeed will be those who can balance speed, scale, cost and customer satisfaction not by focusing on any one component in isolation, but by orchestrating all of them in harmony. Whether you build your own infrastructure or plug into someone else's, the playbook is clear: same-day delivery is the new frontier, and the clock is already ticking.

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# The National Manufacturing Sector Continues to Contract

Tariffs, weak orders and cautious hiring continue to weigh on manufacturers as the sector contracts again despite fairly steady production levels.

actory floors are steady but subdued across the country but order volumes are uneven and costs remain unpredictable. Most manufacturers are adjusting schedules, refining sourcing strategies and watching demand as they plan for the months ahead.

That tone of cautious persistence defines U.S. manufacturing right now, according to the latest Manufacturing PMI\* from Institute of Supply Management (ISM\*). The latest data shows another month of contraction, but many leaders say the real story is how companies are adapting, managing labor carefully and focusing on efficiency while waiting for a stronger uptick in orders.

Other companies are embracing the "bring manufacturing back to the U.S." battle cry and finding new ways to reshore and onshore. For example, venerable pen brand Sharpie (Newell Brands) recently invested about \$2 billion in a new facility in Maryville, Tenn., where it's now making more than 500 million pens a year. *The Wall Street Journal* says the shift

helped the manufacturer boost production speeds, maintain stable pricing and avoid layoffs.

#### **Seven Months of Contraction**

Economic activity in the manufacturing sector contracted in September for the seventh consecutive month, following a two-month expansion preceded by 26 straight months of contraction, according to the new Manufacturing PMI\* Report. The report registered 49.1% in September, a 0.4-percentage point increase compared to the reading of 48.7% recorded in August, ISM reports.

A Manufacturing PMI\* above 42.3%, over a period of time, generally indicates an expansion of the overall economy. In other news, the Backlog of Orders Index registered 46.2%—up 1.5 percentage points compared to the 44.7% recorded in August. And the Employment Index registered 45.3%, up 1.5 percentage points from August's figure of 43.8%.

"The Supplier Deliveries Index indicated slower delivery performance for the second consecutive month after one month in 'faster' territory, which was preceded by seven consecutive months in 'slower' territory," ISM's Susan Spence said in the report. "In September, U.S. manufacturing activity contracted at a slightly slower rate, with production growth the biggest factor in the 0.4-percentage point gain of the Manufacturing PMI."

### By the Numbers

On a positive note, one of the four demand indicators improved last month, with the Backlog of Orders Index showing a gain of 1.5 percentage points. The New Orders, New Export Orders and Customers' Inventories indexes contracted at faster rates.

In assessing the current state of the manufacturing economy, ISM says 67% of the sector's gross domestic product (GDP) contracted in September, down from 69% in August. Twenty-eight percent of GDP is strongly contracting (registering a composite PMI\* of 45% or lower), up from 4% in August.

The five manufacturing industries reporting growth in September were petroleum & coal products; primary metals; textile mills; fabricated metal products; and miscellaneous manufacturing. The 11 industries reporting contractions included chemical products, electrical equipment, appliances & components, machinery, and computer & electronic products (among others).

#### "Business Continues to be Severely Depressed"

Manufacturers voiced their concerns and detailed the top pain points that are keeping them up at night right now. "Business continues to be severely depressed. Profits are down and extreme taxes (tariffs) are being shouldered by all companies in our space," said one professional working in the transportation equipment sector. "We have increased price pressures both to our inputs and customer outputs as companies are starting to pass on tariffs via surcharges, raising prices up to 20%."

"The tariffs are still causing issues with imported goods into the U.S.," said one chemical products professional. "In addition to the cost concerns, product is being held up at borders due to documentation issues. The inflation issues continue; low volumes are a constant concern." On the electronics front, one computer and electronic products maker talked about how the semiconductor industry is being impacted by high tariff prices on parts from Korea, China and Europe. "Our industry is at a low point right now as we race to get new nanotechnology in the U.S."

### **Export and Import Trends**

Of the 18 manufacturing industries that ISM tracks, none reported growth in new export orders in September, but 10 industries reported a decrease in new export orders during that 30-day period. Seven industries reported no change in new export orders in September. At the other end of the spectrum, ISM's Imports Index remained in contraction for the sixth month in September after expanding for three straight months.

The September figure of 44.7% is a decrease of 1.3 percentage points compared to the reading of 46% reported in August. "Imports are contracting at a faster rate," says Spence, "indicating lower levels of demand due to tariff pricing."

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### 8 Tips for Cybersecurity Awareness Month

Cybersecurity Awareness Month is here and it's a reminder that prevention starts with awareness and action.

yberattacks in the U.S. reached new highs in 2024, exposing data from nearly 170 million people in major breaches and pushing the average cost of a U.S. breach to \$9.36 million, according to Hinkley Allen. Threat actors used everything from phishing to zero-day flaws, driving the impact higher each year. The issue keeps escalating as organizations face sharper risks than ever before.

The growing problem expands well outside of the U.S. Over the past four years, the global average number of weekly attacks more than doubled, climbing from 818 per organization in 2021 to 1,984 in 2025, according to the World Economic Forum's Global Cybersecurity Outlook 2025. The report highlights how new technologies, geopolitical tensions and talent shortages are adding to the risk. Small businesses remain especially vulnerable, with many reporting limited cyber resilience.

"Despite the increasing number of attacks, industry analyst IANS reports stalling budgets for cybersecurity. Growth has slowed from 17% in 2022 to just 4% in 2025, rather than increasing in line with threat levels," Andrea Willige writes in the WEF report. "Further complicating matters is an acute

talent scarcity, making it not only hard but also expensive to recruit cybersecurity experts."

#### **Cybersecurity Awareness Month**

As cyberattacks outpace organizational and governmental defenses, awareness and preparation matter more than ever. That's the goal of Cybersecurity Awareness Month, which takes place every October. This year's theme is *Building a Cyber Strong America*. The focus is on bolstering the nation's infrastructure against growing cyber threats and strengthening resilience across every sector.

"Cybersecurity is more than an IT issue—it's a public safety and economic security priority," CISA emphasizes. "Many organizations are part of the nation's critical infrastructure, from local utilities and transportation systems to hospitals, schools and public safety agencies." It says small and medium size businesses also play an important role in critical infrastructure, with suppliers, contractors, vendors, manufacturers and other providers all working together to keep critical infrastructure operating.

Here are eight ways organizations can strengthen their cybersecurity strategies and stay ahead of evolving threats:

- 1. Start with the fundamentals. Cybercriminals look for easy targets. Companies that skip the fundamentals make it easier for attackers to get in. CISA urges every organization to train employees to spot phishing attempts, require strong passwords and multifactor authentication, and keep business software up to date. These simple steps block many common entry points.
- 2. Protect and monitor your data. Strong cybersecurity goes beyond prevention and focuses on preparation. Logging system activity helps teams detect suspicious behavior early. Regular data backups make recovery faster and less stressful after an incident. Encrypting files and devices adds another layer of protection, keeping sensitive information unreadable even if attackers gain access.
- **3. Stay connected and share information.** Cybersecurity is a shared responsibility and CISA encourages organizations to report cyber incidents to help alert others and strengthen defenses across industries. Public agencies should also consider moving to .gov domains to reduce impersonation risks and build public trust. Sharing threat information and staying informed helps everyone stay ahead of potential attacks.
- 4. Combine skilled people with smart technology. The WEF reports that while cyberattacks continue to rise, cybersecurity budgets are slowing. Many companies are leaning on AI tools to help detect and respond to threats faster. But the organization also warns that attackers are using those same tools to create more advanced phishing, identity theft and zero-day attacks. The best approach is to pair human awareness with AI-driven defense, training employees to spot scams, question unusual requests and verify information before acting.
- 5. Protect identity and verify communication. According to WEF, deepfakes and AI-generated content are now part of the cybercriminal toolkit. Criminals have used cloned voices and fake video calls to impersonate executives and steal millions. Businesses need strong identity checks for any financial or data-related requests. Building clear verification steps—like confirming with a second contact or secure channel—helps stop fraud before it spreads.
- **6. Close the talent gap through collaboration.** WEF's Global Cybersecurity Outlook 2025 found that only 14% of organizations have the right cybersecurity talent. That

shortage leaves most companies underprepared. To counter it, WEF urges collaboration among private companies, governments and global partners. Sharing threat data, training programs and best practices help strengthen defenses and build a more resilient world overall.

- 7. Control physical access to your computers and create user accounts for each employee. Prevent access or use of business computers by unauthorized individuals. Laptops can be particularly easy targets for theft or can be lost, so lock them up when unattended. "Make sure a separate user account is created for each employee and require strong passwords.," the FCC advises. "Administrative privileges should only be given to trusted IT staff and key personnel."
- **8. Secure your Wi-Fi networks.** This may sound like an obvious one, but if you have a Wi-Fi network for your workplace, make sure it is secure, encrypted and hidden. To hide your Wi-Fi network, set up your wireless access point or router so it does not broadcast the network name, known as the Service Set Identifier (SSID). Password protect access to the router.

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### Is Half of Your Warehouse Travel Time Wasted?

Warehouse travel time represents one of the most overlooked drains on warehouse productivity. Conveyor belts, robotics and warehouse management systems may speed up processes, but poor slotting strategies and inefficient layouts still lead to wasted movement.

very extra step or second spent in transit adds to thousands of daily orders, quietly eroding profit margins and fulfillment speed. For modern operations, optimization is beyond efficiency. It involves reclaiming capacity, cutting costs and fully realizing the return on investment in automation.

### The Role of Layout and Slotting Optimization

Velocity-based slotting continuously analyzes order data to keep the most frequently picked items close at hand. Meanwhile, static slotting works best for operations with stable product demand and consistent stock-keeping units (SKUs). Beyond slotting, cross-docking and zone picking ensure products flow directly to their next stage instead of backtracking through storage aisles.

Goods-to-person automation further enhances this efficiency. For example, automated mobile robots deliver items directly

to pickers, boosting throughput and storage density by dedicating defined zones to robotic operations. However, efficiency should never come at the cost of safety. Balancing throughput goals with ergonomic design and safe workflows prevents fatigue and other hidden labor losses that undermine long-term productivity.

### **Diagnosing Travel Time and Inefficiency**

Every unnecessary trip across aisles compounds into hours of lost productivity, which makes travel reduction one of the most effective levers for performance improvement. Professionals track pick density, distance per order line and touches per SKU to diagnose these inefficiencies. Modern analytics tools like warehouse management systems (WMS) and heat mapping software bring these insights to life, helping teams visualize high-traffic bottlenecks and inefficient pick paths.

Some warehouses have achieved up to 80% increases in product volume and 70% gains in inventory accuracy after adopting WMS, which underscores how data-driven optimization translates into measurable results. Yet as SKU proliferation grows and dynamic slotting algorithms occasionally misplace fast movers, travel inefficiency can reemerge and offset these gains. Addressing data accuracy and intelligent slotting ensures every step in the warehouse adds value.

### **Leveraging Technology to Reduce Wasted Motion**

Real-time location systems, automated guided vehicles and AI-driven route optimization shorten warehouse travel paths by automating movement and optimizing routes in real time. When combined with Internet of Things sensors and predictive analytics, warehouses gain continuous performance insights. Meanwhile, machine learning anticipates SKU demand shifts and triggers proactive re-slotting. These innovations deliver productivity gains, which help operations move faster and smarter.

### Measuring Return on Investment and Continuous Improvement

Key performance indicators such as orders per hour, cost per pick and energy use per movement help assess the success of warehouse travel-time reduction initiatives. These metrics help teams quantify improvements in cost control and sustainability. Before implementing major layout changes, simulation modeling can test different designs and traffic patterns, predicting how each adjustment affects throughput and labor.

Researchers often use these models to simulate multiple scheduling and inventory management scenarios, which provide a deeper understanding of how various strategies influence operational efficiency. Establishing a continuous improvement cycle ensures every optimization effort is scalable and aligned with long-term productivity goals.

### **Turning Travel Time into Throughput**

Warehouse travel time is often underestimated, yet it represents one of the most recoverable sources of lost productivity. By analyzing and redesigning these patterns, teams can unlock significant time and cost savings without major infrastructure changes. Professionals should view travel analysis as a strategic performance lever that strengthens overall efficiency and profitability.

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### 5 Steps to a More Resilient Supply Chain

Practical actions supply chain leaders can use to reduce risk, control costs and keep goods flowing.

Supply chains are under constant pressure. Disruptions from conflict, natural disasters or demand swings are now routine, and most networks are not prepared.

Research shows that the majority of supply chains still lose value when uncertainty hits. That fragility leaves companies scrambling to recover, often at the cost of both marnins and customer trust.



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# Even as Priorities Shift, Supply Chain Sustainability Holds Steady

New report from MIT proves that sustainability remains embedded in supply chain strategy despite shifting policies and economic pressures.

ome companies have eased up on sustainability this year. With shifting federal priorities and changing incentives, a few firms are rethinking how much time and money they put toward environmental goals. Others have slowed their progress on emissions or delayed new initiatives altogether. The pullback might be temporary, but it comes at a time when supply chain emissions and accountability are more important than ever.

Take transportation, for example. The EPA reports that transportation accounted for 28% of total U.S. greenhouse gas (GHG) emissions in 2022, more than any other sector. Cars, trucks, aircraft and rail systems all contribute to that total, showing how deeply freight movement shapes the country's environmental footprint.

Light-duty vehicles made up 57% of transportation emissions, followed by medium- and heavy-duty trucks at 23%, aircraft at 9%, and the rest divided among ships, rail and other sources. Those numbers show how much logistics and delivery deci-

sions affect sustainability performance. "The transportation sector is one of the largest contributors to anthropogenic U.S. GHG emissions," the EPA notes.

While some progress has slowed, sustainability remains a key part of many companies' long-term strategies. According to a new report from MIT researchers, sustainability still ranks high on corporate agendas. In *State of Supply Chain Sustainability 2025: Sustainability Still Matters*, the authors found that even as some companies ease off public commitments, many continue to invest behind the scenes to strengthen environmental performance and transparency.

### Yes, Sustainability Still Matters

According to MIT, sustainability hasn't disappeared from corporate strategy, but it has evolved. Despite shifting policies and economic pressures, most companies are holding firm on their commitments and finding practical ways to balance cost, compliance and carbon reduction. Based on feedback from

1,200 professionals from nearly 100 different countries, the report shows how firms are moving from intention to measurable impact.

Some of the key findings include:

- Commitment remains strong. About 80% of companies say sustainability is important or extremely important to their long-term success. Even after major policy changes, 73% kept their commitments steady and 12% increased their efforts.
- Public accountability drives action. Firms with public sustainability goals are 74% more likely to invest in high-impact initiatives and include sustainability in daily decisions, MIT says.
- Scope 3 emissions are a persistent problem. Indirect emissions make up more than 75% of most corporate carbon footprints but remain the hardest to measure and reduce because of supplier data gaps and inconsistent reporting.
- Data quality is complicating the issue. About 70% of companies cite a lack of supplier-specific information as their biggest barrier to accurate Scope 3 accounting, followed by unclear methods and high tool costs.
- Economic uncertainty slows progress. More than half of companies that MIT surveyed say unclear ROI is the top reason they delay Scope 3 reductions, especially small and midsize businesses with limited budgets.

- Collaboration pays off. About 80% of organizations that join cross-industry collaborations report better supplier alignment, improved data quality and greater cost efficiency. MIT calls collaboration "not just an option but a necessity for credible emissions reduction."
- Transportation sits at the center of it all. MIT reports
  that companies are focusing on operational efficiency
  through smarter routing, fuller loads and better fuel use
  as their top near-term strategy for cutting transportation-related emissions.

#### **Embedding Sustainability Organization Wide**

With most companies either continuing supply chain sustainability practices at the same level as in recent years or accelerating those efforts, MIT says the trend remains clear: Sustainability is now embedded in business strategy, supply chain management and investment decisions.

"What we found is strong evidence that sustainability still matters," MIT Sustainable Supply Chain Lab's Josué Velázquez Martínez told *MIT News*. "There are many things that remain to be done to accomplish those goals, but there's a strong willingness from companies in all parts of the world to do something about sustainability."

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### The Intersection of Tariffs and Supply Chain Sustainability

Rising tariffs are forcing companies to find new ways to balance cost control with sustainability goals.

Tariffs aren't just a trade issue anymore. They've become a constant concern for procurement teams and supply chain operators that have to factor tariffs into every decision. For companies already working with thin margins or dealing with issues like supply chain disruptions, this added expense can make it difficult to balance price, supply stability and long-term goals.



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# Washington's Al Gamble: What the New "Space Race" Means for Factories and Supply Chains

The U.S. is betting on AI like it once bet on the moon, and the clock is ticking. Manufacturers and distributors now face a choice: harness this wave of automation to leap ahead, or risk getting left behind in the new Space Race.

he United States' role in the Space Race during the 1950s, '60s and '70s spurred incredible technological progress. Rapid advances in sectors like computing, communications and materials engineering brought satellites, robotic landers and even rocket ships to life.

But the impact didn't stop there because countless unrelated industries were impacted as well, reshaping the U.S. economy for decades to come.

Today, federal interest in artificial intelligence (AI), semiconductors and robotics echo that same sense of innovation, urgency and potential impact, perhaps because we're seeing some of the very same drivers in global competition, national security concerns and the recognition that technological leadership translates into economic strength.

#### The Politics of AI

When governments get involved, it can make the economics of investing in infrastructure or innovation more attractive. Fortunately, the U.S. government has signaled a prioritization of AI and automation in recent years.

The CHIPS and Science Act directed billions into domestic semiconductor manufacturing to reduce reliance on foreign supply. National AI task forces have been developed, establishing frameworks for safe and responsible AI development while funding key research into industrial and defense applications. Federal research and development support is also helping drive innovation and exploration across use cases.

Essentially, we're seeing aggressive prioritization on the macro level. But that's only half the equation. Adoption and integra-

tion will also depend on how well individual firms align with this new landscape and these investments don't happen overnight. They must go through gates such as building permits.

### Opportunities in Manufacturing, Distribution and Beyond

The influence of the Space Race reached far beyond the aerospace industry. In fact, it produced measurable economic growth across diverse sectors through what economists call "spillover effects."

A 2023 study from the Proceedings of the National Academy of Sciences of the United States of America (PNAS) found that U.S. space investments delivered their strongest productivity and innovation spillovers in the late 1960s and early 1980s, as Space Race-era technologies like computing and advanced materials spread into civilian markets.

Today, AI has the potential to play a similar role in manufacturing, distribution and beyond.

AI tools can now process massive datasets, helping manufacturers predict demand shifts, optimize sourcing and adjust production plans far faster than their human counterparts. And, in the same way the Space Race improved systems thinking and risk management, AI enables powerful predictive insights. These tools can help model tariffs, identify critical supply chain bottlenecks or anticipate disruptions before they escalate.

These advancements are certainly exciting for manufacturers and distributors. Per the National Association of Manufacturers (NAM), 72% of manufacturers surveyed saw cost reductions and efficiency improvements after AI deployment. But it's important to remember that benefits reach far beyond the factory. Just as Space Race technologies spilled into medicine, communications and consumer products, AI's impact will continue to ripple outward.

With improved efficiencies, today's manufacturers and distributors could help hospitals deliver treatments faster by enabling retailers to stock essential goods before shortages hit and giving logistics providers the tools needed to move food, fuel and medicine more reliably.

The AI era will rival the Space Race's lasting economic impact and the internet's revolutionary transformation of global commerce and connectivity.

### Joining the Race

The promise of AI is powerful enough to compel any manufacturer or distributor to act, because AI can have such an incredible impact on revenue and margin. But remember: NASA didn't reach the moon by jumping in without a strategy. They mapped every step, tested every system and built with reliability and quality in mind because those materials would be subject to atmospheres not found on earth and need to last for decades.

All organizations must take the same disciplined approach to AI adoption. For example, in my experience, it's critically important that manufacturers and distributors invest in data readiness in addition to layering in new tech tools. Clean, structured and accessible data is the foundation for AI effectiveness. Otherwise, you're risking flawed or misleading results limiting the benefit of applying AI.

Starting small with targeted AI use cases that offer quick ROI can also build intentional momentum. You might consider something like predictive maintenance or automated quality checks to get the ball rolling.

Along the same vein, don't forget to pair technology adoption with workforce development. Astronauts needed rigorous training on unfamiliar instruments during the Space Race. And, critically, today's employees will need to familiarize themselves with new, AI-powered tools. In my experience, lack of employee buy-in is the primary reason that many AI projects fail to meet their objectives, so this should be core to any AI project.

### Winning the New Space Race

The race is on! This time, not to the moon or stars, but to a smarter, more efficient industrial future. Do you feel the fear of missing out?

This isn't the first time that manufacturers have had to live through and embrace a shift in their markets and technology. Many companies are still running machines from 40 years ago. Yet, AI is proving to show immense value throughout the value chain. Those who adopt at the right time will be on the path to gaining market share, and laggards will likely be relegated to local markets.

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# How Al-Powered Risk Intelligence Is Transforming Supplier Management

### AI-powered risk intelligence lets procurement teams predict supplier failures and shift from reactive to proactive resilience.

oday's supply chains are faster and more fragile than ever. Geopolitical shocks, climate-driven disruptions and sudden capacity squeezes are all affecting the network. While companies have long managed supplier threats, the scale and speed of disruptions expose the limits of manual monitoring and checklist-based playbooks.

AI-powered risk intelligence gives you a way out of constant firefighting. By ingesting multiple sources of data and forecasting where problems are likely to occur, AI converts noisy alerts into prioritized insights, letting you move forward if a failure becomes a supply chain crisis.

### The Limits of Traditional Supplier Risk Management

Many companies implement the approaches they are most familiar with. These conventional methods include manual supplier assessments, audits and scorecards. These systems work for routine checks, but they are slow, fragmented and almost always backward-looking. They measure what has happened but cannot spot what is about to go wrong.

After COVID-19 and other unexpected disruptions, many teams invested in continuous monitoring to catch indicators early, implementing real-time feeds, dashboards and scenario modeling. This digitization helped companies stay ahead of disruptions, but those programs lost momentum once budgets tightened. Organizations then drifted back to event-driven responses.

According to a 2024 McKinsey survey, only 25% of respondents reported that their organization maintains a steady reporting cadence for supply-chain risk. The year before, almost 50% said their companies had a consistent reporting rhythm, showing organizations are slipping away from continuous monitoring.

Moreover, visibility often stops at Tier 1 suppliers, which prevents firms from reliably tracing risks to deeper tiers, leaving blind spots that can conceal cascading failures. Put simply, manual reviews create data silos, facilitating a lack of insight and cross-supplier context for teams and forcing them to respond after disruptions instead of preventing them.

### The Core Benefits of AI in Supplier Risk Management

AI enables proactive supplier risk management. Such capabilities allow teams to change how they perceive and respond to supplier risk.

#### Gaining Predictive, Real-Time Visibility

AI pulls together thousands of insights from news, shipping and customs feeds, financial filings, weather and port congestion data, and more. It identifies patterns in these sources and generates signals for potential risks. Rather than missing a delivery or failing an audit, you get early warnings about potential problems and can investigate before they arise.

Modern systems score and triage alerts based on likely impact, allowing teams to focus on the tasks that matter. This results in faster response times and clearer visibility across regions and tiers.

### **Automating and Deepening Risk Assessment**

AI automates vetting and reassessing suppliers by scanning financial health, compliance records, cyber posture, production capacity and other risk indicators. What used to be a quarterly check becomes a continuous, updated profile that highlights emerging vulnerabilities and speeds decision-making.

For example, the Defense Logistics Agency analyzed 43,000 vendors with AI, which flagged 19,000 as potentially high risk. When managers can reassess these highlighted suppliers in a shorter period, they can reallocate audit and remediation resources to where they will reduce the most risk.

#### **Enhancing Supplier Performance Monitoring**

Beyond risk flags, AI keeps an eye on day-to-day performance, such as on-time delivery rates, quality deviations, inventory levels and other key performance indicators. Models detect slight shifts, whether it is a rising defect rate at a plant or slower lead times from a region. This instantaneous information helps prioritize actions and recommend strategies.

#### **How to Implement AI-Powered Solutions**

Whether building or purchasing an AI model, firms need to establish trust in the inputs by using clean, connected data and aligned risk processes.

### 1. Build a Foundation of High-Quality Data

AI models only help when they have well-structured information. That means breaking down siloed records across

procurements, logistics, finance and operations and bringing external feeds into a governed layer for comparison.

This often involves mapping the key fields needed, such as lead times, payment history and audit status. This approach also requires an assigned owner for each data domain and basic hygiene measures, such as simple validation rules and near-real-time syncing. Those steps dramatically reduce false positives and make alerts easier to action.

#### 2. Integrate Internal and External Risk Strategies

AI for supplier risk management should be integrated into a resilience plan by tying external supplier signals to an internal continuity strategy. These signals may be for power outages, plant shutdowns and insurance triggers. When integrated with a broader playbook, AI can map alerts to concrete actions.

This step starts with mapping dependencies end-to-end and linking signals to existing response plans. For example, manufacturers commonly rely on manufacturing insurance to cover lost income and additional expenses when business or supply chain disruptions halt operations. This type of protection should be invoked automatically when AI flags a high likelihood of disruption. Run exercises with procurement, operations, legal and insurance teams so that AI alerts triggers, such as a supplier review or insurance notification.

#### 3. Choose the Right Tools and Foster Collaboration

Select platforms that match specific use cases. Look for solutions with flexible integrations, explainable scoring for trustworthy recommendations and the ability to phase in capabilities.

Equally important are people and process. Create cross-functional ownership, define service level agreements for alert triage and invest in team training. Lastly, measure outcomes, such as reduced downtime, and use wins to secure ongoing funding and executive support.

#### 4. Address Ethical Challenges of AI in the Supply Chain

AI can create ethical and operational risks that teams must manage. If left unchecked, they can produce undesirable outcomes and invade supplier privacy. Algorithmic bias is a major concern because models based on imperfect historical records may unfairly penalize companies or unintentionally replicate human bias from their training data. It is crucial to perform routine checks and use human review for high-impact decisions.

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# For ROI in Procurement, Avoid the Multi Al Agent Trap

Here's why one specialized agent with range and deep sourcing expertise is the key to delivering better business outcomes.

a 95% rate of failure of Gen AI pilots sparked considerable media coverage and, no doubt, many deep enterprise conversations asking the question: Which AI business use cases do succeed at delivering ROI?

The correct use cases can deliver a "Yes" answer to this simple litmus test: Does adding more human labor to scale the function have the reverse of the desired effect, reducing productivity by adding unacceptable workflow bottlenecks, costs and complexity?

One such use case is enterprise procurement. And because it's also too strategic and nuanced to hand over entirely to machines, procurement gains additional credibility and veracity from the humans in the loop. The perfect symmetry here is that the human capacity to provide this necessary oversight is actually freed up by agentic AI doing the drudge work.

By applying agentic AI to large enterprise procurement scenarios, companies such as HP, Fidelity Investments, BT, Santander Bank and Tesco have measured ROI figures. Tesco's Save to Invest program, for example, was called out in the retailer's 2024 Annual Report for helping to deliver £1.2bn in savings, enabling the company to "offset inflation and create headroom to fund investments."

If we agree that procurement is a solid use case, the other ingredient for ROI is ensuring AI is engineered to produce optimal outcomes at the speed of business. With agentic AI, the temptation is to go for vendor or home-grown systems that use lots of agents to handle specialized tasks like POs, supplier search, SOW-writing or negotiation. This multi-agent approach, however, reduces agents to siloed task executors that lack perspective, intelligence and range.

### The Many Advantages of Range

In one of my favorite books, "Range: Why Generalists Triumph in a Specialized World," the author David Epstein argues that in a complex and unpredictable world, the most successful experts often start as generalists. Exploring broadly across different domains, rather than specializing early, enables deeper creativity and better problem-solving, he maintains.

Range challenges conventional thinking behind specialization and Malcolm Gladwell's "10,000-hour rule," demonstrating the relative advantages of broad experience across sports, science and business. It explains why many company leaders ultimately become innovative thinkers and gain long-term success after coming through cross-functional management development programs.

### Why Range Matters to AI Agents in Procurement

We humans learn linearly, building expertise over time through trial and error. Even the most versatile polymaths need years to develop true cross-functional prowess. AI agents, by contrast, can instantly ingest and synthesize the experience of thousands, switch roles fluidly and see patterns humans can't.

That difference highlights why scaling procurement solely with human labor is so difficult. Procurement may be a specialist function, but it spans an unusually wide set of activities. On a typical day, a procurement executive might hop from category management to sourcing to supplier relationship management to ensuring supply continuity. To manage billions of dollars in trade, there's a dizzying range of skills, experience, knowledge and strategic execution required. The domain expertise spans sourcing, supplier discovery, stakeholder intake, requirement definition, RFP creation, negotiation, contract management, compliance, risk assessment, legal alignment, finance integration and ongoing performance management. All these activities generate huge amounts of documents and data.

Traditionally, this work is split across teams, creating countless silos and hand-offs, which is why scaling manually becomes so counterproductive. Using AI agents solves this dilemma because you can deploy a single procurement agent with the range and depth to handle multiple interconnected processes. Using a single agent for procurement can deliver what users need: a cohesive, intelligent partner designed to reason, learn and operate across every stage of the sourcing journey.

#### What to Look for and What to Avoid

To gain the best ROI outcomes, look for a single AI agent with a wide range of procurement expertise and broad contextual understanding. The agent should be designed to reason, learn and operate across every stage of the lifecycle, from "I have a need" to "I am now engaged with my supplier to satisfy my need." It should navigate simple and complex sourcing requests that span industries, regulations and internal dynamics, direct and indirect, across sectors like telecom, financial services, consumer goods and retail, technology and enterprise IT, and others. It should manage everything from tail-spend and complex services to multi-billion-dollar strategic sourcing, covering thousands of categories with deep expertise and autonomous decision-making.

What to avoid? Anyone selling lots of task-based AI agents. It might help them to "land-and-expand" their sales engagement with you, but it will never help you achieve that elusive ROI.

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How AI-Powered Risk Intelligence Is Transforming Supplier Management (Continued from page 27)

Privacy and transparency are also important. Only collect what you need, document retention and access rules, and share clear explanations with suppliers about what you monitor and why. Where possible, use aggregated signals for trend detection and reserve identifiable data for validated investigations that adhere to legal and contractual requirements.

### Making AI Work for Supplier Risk

AI-powered risk intelligence can move companies from firefighting to foresight, but only if you build the right foundations. Start small, clean your data, and test and measure to ensure the technology functions effectively across your operations. When its alerts trigger coordinated action, AI becomes a force for stronger supplier relationships and risk management.

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# **2025 TOP ASIA PACIFIC Distributors**



	Company	Locations	Employees	Founded	Headquarters	2024 Global Revenue
1.	Win Source Electronics	13	318+	1999	Shenzhen	\$568,000,000
2.	Amble Electronics Asia Limited	18	280+	2010	Hong Kong	\$450,000,000
3.	Shenzhen Unibetter Technology Co.,Ltd.	7	244	2009	Shenzhen	\$240,000,000
4.	Shenzhen Shengyu Electronics Technology Ltd.	4		2016	Shenzhen	\$235,211,831
5.	LCSC Electronics			2011	Hong Kong	Publisher Estimate
6.	ARS Electronics Company Ltd.	10	220	1998	JiNing	\$200,000,000
7.	Flyking Technology Co., Ltd.	10	270	2010	Hong Kong	\$150,000,000
8.	Icsole Technology Limited	3	95	2016	Shenzhen	\$135,000,000
9.	Cytech Systems Limited	6	120	2013	Shenzhen	\$125,000,000
10.	Özdisan Elektronik A.S.	6	315	1980	Istanbul	\$118,000,000
11.	Chip Source Co., Limited	2	50-100	2007	Shenzhen	\$100,000,000
12.	Ample Solutions	8	253	2008	Singapore	\$95,000,000
13.	THJ(HK) Technology Limited	3	30+	2012	Shenzhen	\$52,000,000
14.	DGT Technology (HK) Co., Limited	4	105	2010	Shenzhen	\$50,000,000
15.	Supreme Components International Pte Ltd.	14	75	2001	Singapore	\$44,995,406
16.	RX Electronics Limited	2	30+	2004	Hong Kong	\$36,000,000
17.	Ersa Electronics	4	80-90	2012	Singapore	\$32,570,000
18.	All True Tech Electronic Co.,Ltd.	4	50+	2011	Shenzhen	\$30,000,000
19.	Compo Electronics Asia Limited	16	375+	2003	Shenzhen	Publisher Estimate
20.	Digisino Electronics Limited	3	85	2003	Kowloon	\$24,244,523
21.	RYX Electronic (HK ) Limited	4	50-60	2010	Shenzhen	\$23,000,000
22.	Lixinc Electronics Co., Limited	2	20-50	2010	Shenzhen	
23.	JAK Electronics	2				\$20,000,000
-		4	20-50	2018	Hong Kong	\$18,000,000
24.	Utmel Electronic	2	96		Shatin, N.T.	\$17,772,917
25. 26.		1	200+	2017	Kowloon Shenzhen	Publisher Estimate
-	Bison Technologies Limited	1	-	2006		\$12,000,000
27.	Hantech		20+	1973	Shenzhen	Publisher Estimate
28.	Heisener Electronics Finestock Electronics			2014	Hong Kong	Publisher Estimate
29				2015	Hong Kong	Publisher Estimate
30.	Kehuite Technology Dev. (HK) Ltd.	•	0.7	2004	Hong Kong	Publisher Estimate
31.	Bonase Electronics Co., Ltd.	2	87	2006	ShenZhen	\$5,000,000
32.	CH Global Co.,Ltd.	3	15	2005	Pusan	\$5,000,000
33.	Fairstock hk limited	3	106	2013	Hong Kong	\$4,070,000
34.	New Strength Electronic Co., Limited			2005	Shenzhen	Publisher Estimate
35.	Chipmall Electronics			2006	Shenzhen	Publisher Estimate
36.	Fixchips Technology			2011	Singapore	Publisher Estimate
37.	CJJ HK Technology Limited			2013	Hong Kong	Publisher Estimate
38.	Interine Comonents Co., Limited			1987		Publisher Estimate
39.	Fly-Wing Technology (HK) Co., Ltd.			2012	Hong Kong	Publisher Estimate
40.	Fudatonghe Limited			2017	Hong Kong	Publisher Estimate
41.	Shenzhen Augswan Electronics			2019	Shenzhen	Publisher Estimate
42.	Perceptive Components Limited			2019	Hong Kong	Publisher Estimate
43.	Bostock Electronics (HK) Limited			2015	Hong Kong	Publisher Estimate
44.	Pneda Technology			2009	Hong Kong	Publisher Estimate
45.	Nova Technology (HK) Co., Ltd.		Less than 20	2000	Hong Kong	Publisher Estimate
46.	ODG (Origin Data Global)			2011	Shenzhen	Publisher Estimate
47.	IC Components Limited	2	35	2001	Hong Kong	\$2,850,000
48.	Ariat Technology Limited	2	30	1996	Hong Kong	\$2,500,000
49.	Smart Pioneer Electronics Co.,Ltd.	2	12	2021	Hong Kong	\$1,800,000
50.	China Golden Sun Technology Ltd.			2015	Shenzhen	\$1,000,000