

The Resilient Supply Chain Benchmark

Ready for anything? Turbulence and the resilience imperative



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About this report

Ready for Anything? Turbulence and the Resilience Imperative is an Economist Intelligence Unit report, commissioned by the Association for Supply Chain Management (ASCM). The analysis in this report is based on The Resilient Supply Chain Benchmark, a first-of-its-kind benchmark assessing supply chain resilience in US companies.

The EIU bears sole responsibility for the contents of this report. The findings, analyses and recommendations included in the report reflect the EIU's views and not necessarily those of the subject matter experts who were consulted.

The project was informed by interviews with other leading practitioners in the field of supply chain. The EIU is very thankful for the time and expertise they contributed to this project:

List of expert interviewees

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Mike Douma, Vice President, Supply Chain, AbbVie

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Ana Nicholls, Director, Industry Operations, The Economist Intelligence Unit

Vijay Sankararaman, Vice President of Product & Technology and Supply Chain at Lowe's Inc.

Randhir Thakur, Chief Supply Chain Officer, Intel Corporation

The project has benefitted from counsel provided at various stages by a panel of experts consisting of prominent authorities on supply chain resilience, sustainability, and circularity. The EIU is extremely grateful for the expertise and advice these individuals generously shared with this project.

List of expert panelists

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Key insights

- **Business continuity plans and playbooks should include triggers outlining actions to be taken across a range of disruptions.** Without detailed information outlining steps to be taken in the event of a crisis, business continuity plans may be of limited effectiveness. During the pandemic, many companies found that their business continuity plans lacked information about less critical processes which were magnified in importance in the middle of a prolonged disruption happening everywhere at once. Analytics can help mature companies develop digital playbooks that coordinate roles and responsibilities for personnel across multiple functions.
- **Companies lack end-to-end visibility, leaving them vulnerable to dynamic or unexpected risks.** In just over half of the companies benchmarked, the view of supply chains is based on internal data, or relies on siloed or outdated data-sets. This limits their ability to detect emerging threats or calculate how a disruption will unfold across supply chains and business units. High performers build an 'outside-in' picture through the integration of supply chain partners into demand forecasting and planning as well as systems that provide real-time data.
- **Companies are building strategic supply chain resilience by forging strong long-term relationships with key suppliers and customers.** In a world of complex risk, no company is an island. High performers work with their supply chain partners by sharing best practices, by ensuring their partners' systems are robust enough to support new product developments, or by providing financial assistance that preserves supply chain networks during disruptions.
- **Climate change is among the biggest risk factors of the 21st century, but there is a gap between rhetoric and reality where sustainable supply chain initiatives are concerned.** According to our survey, making the supply chain more socially and environmentally sustainable is the top way that companies across sectors plan to build resilience over the next 3 to 5 years, yet less than half (42%) of companies have set targets to reduce supply chain-related (or scope 3) carbon emissions. Target-setting is followed by more difficult tasks, such as establishing baselines and monitoring performance. Climate risk awareness - including scenario planning, understanding the impact of climate change on suppliers and readiness for carbon pricing - is one of the lower performing categories in the benchmark.

Ready for anything? The risk resilience imperative

Over the last three decades, the dominant supply chain paradigm emphasized leanness, efficiency and cost control against a backdrop of deepening globalization. As supply chains were optimized, the risk landscape became more unpredictable. Even before the covid-19 pandemic struck, trade tensions and geopolitical instability, along with extreme weather events and climate change, put pressure on supply chains. For those who failed to take notice, the pandemic has been a deadly example that we live in an interdependent and volatile world in which a number of complex risks can unfold in rapid and often surprising ways.

In this era of increased turbulence, it has become critical to reconsider the balance between efficiency and resilience. Organizations need to prepare for a range of upstream and downstream disruptions, from those which can be imagined and anticipated, such as a factory fire or flood, to those which cannot, such as dynamic interactions of complex technological systems or the uncertain future of climate change. This has elevated supply chain planning and risk management into strategic and C-suite decision-making. Among retail and pharmaceutical companies assessed in the benchmark, increasing supply chain resilience was the second-ranked strategic objective for the next 12 months.

Today, forward-thinking companies have taken the events of 2020 as an opportunity to strengthen their supply chains for the long-term. Historically, supply chain managers have focused on readying themselves for short-term predictable shocks and recovering back to a business-as-usual scenario. “Rather than dealing with specific risks one at a time,” says



In today’s age of turbulence, on a tightly-connected planet, all enterprises—from small businesses to multi-national conglomerates—need to improve their inherent resilience.

Joseph Fiksel, Professor Emeritus,
The Ohio State University

Joseph Fiksel, of the Ohio State University’s Risk Institute, “companies are now adopting a strategic view of the risk landscape, and adapting their business processes and assets to better absorb shocks and remain competitive.” Fiksel continues, “in today’s age of turbulence, on a tightly-connected planet, all enterprises—from small businesses to multi-national conglomerates—need to improve their inherent resilience.”

From shock to lasting change

Companies have performed admirably in many respects during the pandemic, working with suppliers, pivoting their businesses and finding alternative supply chain solutions. Jess Dankert, Vice President of Supply Chain at the Retail Industry Leaders Association, notes the speed at which retail supply chains were able to recover and respond to covid-19 was “very impressive – not just on basic things like stocking and delivering goods to stores or customers directly, but also pivoting and deploying completely new offerings like curb-side sales.” At the same time, Covid-19 has shifted supply chain thinking and sharpened processes in ways that could better prepare companies for tomorrow’s shocks.

Benchmarking modern supply chain resilience in an era of turbulence

The Economist Intelligence Unit, supported by the Association for Supply Chain Management (ASCM), has developed a first-of-its-kind benchmark that assesses both the prevalence of modern supply chain resilience-building capabilities and how resilient companies have been over time.¹ By doing so, The Resilient Supply Chain Benchmark can help corporate leaders and supply chain managers concerned about the growing frequency and intensity of supply chain disruptions to take a wider view of what their industry peers are doing and thereby assess their own resilience-building capabilities.

This report presents findings based on how 308 publicly-listed US companies perform against the benchmark based on a combination of primary survey data collected in October 2020, data from corporate disclosures, and a wide-ranging expert interview program. Our analysis spans three sectors (consumer electronics, pharmaceuticals and retail) and includes firms of different sizes (less than \$250 million, \$250 million to less than \$1 billion and over \$1 billion in annual revenues). Companies included in the benchmark are assessed across two equally important domains: operational supply chain resilience and strategic supply chain resilience.²



¹ See Economist Intelligence Unit. *Supply Chain Resilience for an Era of Turbulence*.

Available at: <https://www.ascm.org/supply-chain-resilience/>

² See Fiksel, J. October 2015. *Resilient by Design: Creating Businesses That Adapt and Flourish in a Changing World*. (Island Press), and Fiksel, J., Polyviou, M., Croxton, K. L., & Pettit, T. J. 2015.

From Risk to Resilience: Learning to deal with disruption. *MIT Sloan Management Review*, 56(2), 79-86.

Operational supply chain resilience refers to an organization’s ability to anticipate, withstand and respond to supply chain shocks quickly and effectively and return to a ‘normal’ or improved state. Operational resilience depends fundamentally on understanding the supply

chain and aligning priorities with suppliers. Companies can further develop operational resilience through a range of tactics, from stress-testing and information-sharing with partners to running real-time early warning systems.

Operational Capabilities						Operational Performance	
Position & Prepare		Sense & Plan		Mitigate & Respond		Recover	
Supply Chain Risk Management Maturity	End-to-End Transparency	Visibility - Information Flow	Risk Monitoring & Early Warning Systems	Redundancy & Flexibility	Agility - Responsiveness	Sensing	PP Change in Return on Assets
Supply Chain Risk Management Talent	Liquidity Ratio Leverage ratio	Risk Planning (BCPS/Scenario Planning & Stress Testing)	Supplier Collaboration	Safety & Security	Agility - Velocity		PP Change in Operating Margin

Strategic supply chain resilience focuses on how companies prepare for longer-term risks and structural shifts through organizational learning, building strong relationships with value chain partners, rebalancing the supply chain, and adopting sustainable and circular

practices. Strategic capabilities include climate change adaptation for companies with supply chains vulnerable to more frequent extreme weather events or rising sea levels, or supply chain rebalancing amidst geopolitical tensions.

Strategic Capabilities						Strategic Performance	
Lead		Build		Transform		Adapt	
Leadership	Climate Risk Awareness	Supplier Relationships	Customer Relationships	Environmental Sustainability	Circularity	Supplier Concentration	% Change Scope 3 Carbon Emissions
Corporate Commitments	Organizational Learning	Supply Chain Workforce	Supply Chain Talent	Strategic Supply Chain Risk Mitigation	Supply Chain Innovation		Resource Use
Board Level Engagement							

Operational resilience – Bounce back and recover

Companies can improve business continuity plans and playbooks by including more practical guidance for the entire value chain

Business continuity plans, with triggers outlining actions to be taken across a range of disruptions, are critical to the resilience toolkit. Overall, only 57% of companies benchmarked claimed that they had business continuity plans that met this criterion. Jeanette Barlow, previously Vice President of Strategy and Offering Management at IBM Sterling, says that in her experience, “roughly half of companies either don’t have business continuity plans in place or are still in the process of formulating one,” a number she finds shockingly high with today’s significantly complex and dynamic threat matrix.

Many companies with business continuity plans already in place are nevertheless eager for improvement. “The pandemic has been a wake-up call for a number of organizations as it exposed business continuity planning that provided little practical guidance to help

management cope with the multitude of interconnected effects such an extreme and extended scenario creates,” says Matt Elkington, Partner at risk consultancy MERC & CO. “With the need to know which suppliers were in a covid hot-spot or which suppliers should give rise to the most concern, many business leaders were frustrated by the inability of Business Continuity Management teams to be able to answer questions on the fly about what mattered most,” explains Martin Caddick, Partner and Technical Lead on Resilience at MERC & CO.

“Although most organizations with business continuity plans were able to keep critical processes going, they found themselves blindsided when less critical processes began to fail,” says Caddick. Amit Nastik, Global Head of Strategy and Operations at Novartis, shared a relevant example, citing the lockdown in Italy and factory shutdowns of third-party suppliers impacting a key component for packaging - aluminum foil. “Suppliers of aluminum foil may not be considered essential, but they have suddenly become essential during the



Although most organizations with business continuity plans were able to keep critical processes going, they found themselves blindsided when less critical processes began to fail.

Martin Caddick, Partner and Technical Lead on Resilience, MERC & CO

Retail: A change of plans

The benchmark reveals that retail is the main sectoral concern regarding business continuity plans. Only 45% of benchmarked retail companies have business continuity plans or playbooks in place that identify triggers and outline steps to be taken in the event of a disruption. The impact of not having a business continuity plan in place in the event of a major disruption can be significant. “Some companies in the retail industry learned this difficult and very expensive lesson due to the unmet demand and chaos they experienced from not being

able to quickly deploy contingency plans, or [due to] an inability to activate order fulfillment channels that would be part of a larger business continuity strategy to help mitigate the business risks associated with widespread global supply chain disruptions,” says Barlow. On a positive note, and in all likelihood as a result of the pandemic, when asked how they plan to build resilience over the next 3 to 5 years, the survey found that better business continuity planning was the highest ranked focus area for retail companies in the benchmark.

pandemic. Now, you really need to look at the entire value chain to determine which suppliers are critical and need to remain operational.”

More mature companies further along in their digital transformation may turn to prescriptive analytics to improve planning. Barlow says, “New AI technologies can facilitate the sophisticated and cumbersome process of establishing and maintaining digital playbooks that help guide teams across multiple functions with the best recommended course of action.”

Companies lack end-to-end visibility, leaving them vulnerable to dynamic or unexpected risks

End-to-end visibility is widely talked about, but a distant goal for many. An average cross-sector score of 52 out of 100 for end-to-end visibility reflects that just over half of the companies benchmarked rely on a picture of supply and demand that is drawn from within the company itself. 37% of companies in the benchmark reported that their visibility was hampered by either internal siloes or was not data-driven at all.

Barlow says, “The pandemic has emphasized the need for integrated planning across functions. It’s no longer good enough to optimize within the swim lane of a particular process. Having a stronger focus on end-to-end supply chain visibility across a series of processes and business outcomes will be a lasting effect of covid-19.” In line with this shift, our survey found that companies ranked improving collaboration across functions as their third-top priority for building resilience over the next 3 to 5 years.

The pandemic has also led companies to realize that integration with supply chain partners should be improved and prioritized. “As an industry, [the pharmaceutical sector] is not as integrated with suppliers [from a data perspective]”, said Nastik. “What became very evident in the first part of 2020 was that we are not using the same interface, we are not using the same system. We had visibility into our suppliers, but it was very hands-on when it came to collecting and combining information.” For many companies, improving visibility will start with data governance, data exchange protocols, and categorization.

Companies making progress on their own digital transformation need to help build capabilities across their end-to-end supply chain. In addition to improving visibility, data from across the supply chain can unlock higher-level capabilities that lead to greater supply chain resilience and supply chain innovation. Stress testing is an important example. With an average cross-

sector score of 48 out of 100, stress testing was one of the less prevalent capabilities among companies assessed in the benchmark. “The key to stress testing is that suppliers have to have digitized their operations,” explained Barlow. “I’ve found that the further you go back into the supply base, the more analog and manual things become,” she added.

Consumer electronics: Sensing something amiss

Large consumer electronics companies scored higher than industry and cross-sector peers for a number of operational and strategic capabilities. For instance, consumer electronics companies with revenues greater than \$1B scored 88 for their ability to sense disruptions early on, higher than the benchmark average of 76. The ability to detect disruptions before they impact supply chains can buy companies time to

make adjustments and ensure business continuity, even avoiding a disruption altogether. As such, early detection can increase resilience. A range of approaches can help companies strengthen their early sensing capabilities, from analyzing weather data to monitoring social media trends and proactively researching the business metrics of their supply base to throw up red flags.³

³ Sheffi, Y. 15 September 2015. “Preparing for Disruptions Through Early Detection”. *MIT Sloan Management Review*. Available at: <https://sloanreview.mit.edu/article/preparing-for-disruptions-through-early-detection/>

Operational resilience: Average sector scores and highlights

Consumer Electronics	Sector	0 - \$250M	\$250M - \$1B	\$1B+
Operational Capabilities	62.7	60.7	62.4	66.9
Position & Prepare	61.4	60.5	61.2	63.6
Sense & Plan	60.6	57.9	60.7	65.9
Mitigate & Respond	66.2	64.0	65.4	71.4
Operational Performance (Recover)	62.5	60.4	59.9	69.1
Sensing	76.3	74.7	68.0	88.0
PP Change in Operating Margin	51.8	52.1	51.6	51.4
% Change in Return on Assets (ROA)	51.5	50.1	54.4	51.2

- **Sense & Plan | Business Continuity Planning:** consumer electronics firms with revenues higher than \$250M top the benchmark.
- **Mitigate & Respond | Agility - Responsiveness:** \$1B+ firms stand atop the benchmark, but the sector was average overall.
- **Mitigate & Respond | Cybersecurity:** \$1B+ firms are most likely to require third party independent reviews.
- **Mitigate & Respond | Workforce Safety:** \$250M+ firms outperformed other segments.

Pharmaceuticals	Sector	0 - \$250M	\$250M - \$1B	\$1B+
Operational Capabilities	66.9	68.4	63.8	67.5
Position & Prepare	66.8	68.6	63.0	67.3
Sense & Plan	64.3	64.5	62.7	65.5
Mitigate & Respond	70.0	72.4	65.8	69.8
Operational Performance (Recover)	61.6	64.6	59.1	59.1
Sensing	75.4	81.6	70.3	70.0
PP Change in Operating Margin	50.7	50.1	51.0	51.4
% Change in Return on Assets (ROA)	51.1	52.5	48.5	51.7

- **Position & Prepare | Financial Flexibility:** pharma companies are best positioned financially to weather disruptions.
- **Sense & Plan | Supplier Collaboration:** the pharma sector is slightly ahead of others with joint decision making for redundant inventory and information sharing.
- **Mitigate & Respond | Flexibility & Redundancy:** small pharma companies stand atop the benchmark for this sub-category and for operational capabilities overall.

Retail	Sector	0 - \$250M	\$250M - \$1B	\$1B+
Operational Capabilities	64.0	59.4	62.3	66.1
Position & Prepare	65.5	62.2	59.9	68.5
Sense & Plan	59.6	55.2	61.2	60.7
Mitigate & Respond	66.9	60.8	66.0	69.4
Operational Performance (Recover)	58.5	53.3	61.1	59.5
Sensing	76.6	77.8	75.0	76.7
PP Change in Operating Margin	51.3	51.4	51.3	51.3
% Change in Return on Assets (ROA)	47.6	54.1	50.7	45.2

- **Position & Prepare | Financial Flexibility:** as expected, the retail sector has comparatively fewer financial resources to weather disruptions.
- **Mitigate & Respond | Agility:** retail does well on rapid decision-making culture and shortened planning cycles, with \$1B+ companies topping the benchmark on both counts.
- **Mitigate & Respond | Workforce Safety:** \$1B+ firms scored lower than other segments.

Strategic resilience – Bounce forward and adapt

Companies are building strategic supply chain resilience by forging strong long-term relationships with key suppliers and customers

Building long-term partnerships with key suppliers is an important aspect of strategic supply chain resilience. While companies cannot have deep relationships with every supplier, building relationships with key suppliers, which they prioritize as partners, can foster long-term resilience. Partnerships should include sharing best practices, joint long-term planning, and ensuring partners' systems are robust enough to support new product developments, according to Mike Douma, Vice President, Supply Chain at AbbVie.

Providing appropriate and sustainable levels of financial assistance to suppliers during a shock is a further dimension of relationship-based resilience since maintaining the financial health of the supply chain can position companies to bounce back when economic conditions improve. One study of post-recession fortunes of 4,700 public companies found that firms focused on cost-cutting or cost control had the lowest probability of pulling ahead after recession, and the most successful post-recession performers balanced defensive and offensive moves.⁴

80% of consumer electronics companies sized greater than \$1B stated that they directly help suppliers to remain solvent during times of crisis, compared with an overall average of 54.9%.

Semi-conductors: Ahead of the pack

With their supply chains particularly exposed to disruption from climate change, manufacturers of semi-conductors and other electronic components hold nine of the top ten scores for strategic capabilities among benchmarked consumer electronic companies.⁵ In addition to strong scores for climate risk awareness, sustainability, and circularity, these nine semi-conductor companies scored highly on organizational learning - a hallmark of strategic resilience that can ensure shocks stimulate change and push a company forward to a better

state. Intel provides an instructive example of organizational learning in practice. "With every supply chain event, we conduct post-mortem reviews and implement best learning practices," says Intel's Chief Supply Chain Officer Randhir Thakur. Working with its suppliers has enabled Intel to be ready for a range of shocks, including achieving zero supply chain related customer impacts from the 2011 Japan tsunami. When covid-19 struck, they were able to draw from past lessons, together with well-trained personnel.

⁴ Gulati, R., Nohria, N., & Wohlgezogen, F. March 2010. "Roaring Out of Recession". *Harvard Business Review*. Available at: <https://hbr.org/2010/03/roaring-out-of-recession>

⁵ The Economist. 19 September 2020. "A grim outlook". This is a special report describing semiconductors among industries with supply chains particularly exposed to risk of disruption due to climate change. Available at: <https://www.economist.com/special-report/2020/09/17/a-grim-outlook>

This may reflect deeper pockets but also deeper risks for consumer electronics: 39% of consumer electronics firms responding to our survey stated that supplier/partner bankruptcy was a risk that could cause severe supply chain disruptions over the next 12 months, higher than retail (26.7%) and pharma (29.9%).

Significant reduction of scope 3 carbon emissions requires more industry collaboration

Recognizing that environmental sustainability is a resilience issue, the investor community and regulatory environment increasingly penalize companies for emissions and environmental damage. The proliferation of environmental, social and corporate governance (ESG) reporting metrics, and the growing concern of investors, including institutional types, to ESG-related risks means corporate performance is now materially impacted by ESG.⁶ Data also shows that, despite some predictions that the crisis would expose

the hollowness of the corporate sustainability movement, ESG stocks outperformed during the covid-19 period - the pandemic has only increased investor interest in ESG performance.⁷

Making the supply chain more socially and environmentally sustainable is the number one way that companies plan to build resilience over the next 3 to 5 years, our survey found. Over that timeframe, climate change mitigation is one specific area in need of greater leadership and industry collaboration.⁸ Our benchmark reveals that less than half (42%) of benchmarked companies have set targets to reduce supply chain-related (scope 3) carbon emissions. This is doubly concerning, since target-setting is the easier part of the process. Establishing baselines and monitoring performance on environmental targets in the supply chain is far harder, evidenced by the availability of scope 3 emissions data in the Refinitiv Eikon database for only 16 out of 308 companies analyzed in the benchmark.

Pharmaceuticals: Holding on (to inventory) for dear life

Border closures and challenges to conventional transportation methods, such as the halting of passenger airlines that also carry goods, prompted many companies in the industry to ensure security of supply despite the impact on operating margins. "The cost of not serving a patient is far higher than carrying an inventory cost," says Som Chattopadhyay, Vice President,

Global Supply Chain at Amgen. Reflecting this, benchmarked pharmaceutical companies with revenues greater than \$250M showed a median year-over-year increase in inventory of 13%. A number of companies that increased their inventory by more than 30% raised the average for these same companies to 22%.

⁶ Steinbarth, E. & Bennett, S. 10 May 2018. "Materiality Matters: Targeting the ESG Issues that Impact Performance". *Harvard Business Review*. Available at:

<https://corpgov.law.harvard.edu/2018/05/10/materiality-matters-targeting-the-esg-issues-that-impact-performance/>

⁷ Mooney, A. 2 June 2020. "ESG passes the Covid challenge". *Financial Times*.

Available at: <https://www.ft.com/content/50eb893d-98ae-4a8f-8fec-75aa1bb98a48>

⁸ Carbon Trust. "Briefing: What are Scope 3 emissions?".

Available at: <https://www.carbontrust.com/resources/briefing-what-are-scope-3-emissions>

A high degree of alignment with suppliers is needed to know if a target is achievable and if progress is on track. "You have to ask yourself if your suppliers have the same objectives and timelines. The answer is probably no," says Amit Nastik at Novartis. The company is forging emission agreements, he says, but these are difficult to measure and track along the entire value chain, which can include tens of thousands of suppliers. "Everyone in our industry is going in the same direction announcing ambitious

targets – but we need to be mindful of not overtrumping each other with more ambitious targets without really tackling the issues." Nastik added that as many pharmaceutical companies share the same suppliers, industry collaboration is a promising approach to introduce new practices that are widely shared and adhered to by suppliers. With an average 60% of a company's carbon risk lying in its supply chain, the consequences of inaction are too high.⁹



Everyone in our industry is going in the same direction announcing ambitious targets – but we need to be mindful of not overtrumping each other with more ambitious targets without really tackling the issues.

Amit Nastik, Vice President, Head NTO Global Strategy, Operations, Novartis

⁹ The Economist. 19 September 2020. "Costs of carbon". Available at: <https://www.economist.com/special-report/2020/09/17/costs-of-carbon>

Strategic resilience: Average sector scores and highlights

Consumer Electronics	Sector	0 - \$250M	\$250M - \$1B	\$1B+
Strategic Capabilities	56.1	53.2	56.9	60.9
Lead	55.8	52.4	57.5	61.0
Build	54.9	52.3	55.2	59.8
Transform	57.6	55.3	58.0	62.0
Strategic Performance (Adapt)	29.8	25.1	30.2	38.7
% Change in Scope 3 Carbon Emissions	57.9	n/a	n/a	57.9
Resource Use	21.1	2.1	19.7	39.1
Supplier Concentration	61.3	62.0	61.3	60.0

- **Lead | Climate Risk Awareness:** \$1B+ consumer electronics firms topped the benchmark.
- **Build | Understanding customer expectations:** the sector scored better than others, and companies with revenues over \$250M scored better than all other segments.
- **Transform | Circularity:** \$250M-\$1B companies and semiconductor companies are partnering for circularity.

Pharmaceuticals	Sector	0 - \$250M	\$250M - \$1B	\$1B+
Strategic Capabilities	56.0	54.1	55.7	59.5
Lead	58.1	54.0	55.6	67.1
Build	52.1	50.7	53.9	52.8
Transform	57.5	57.8	57.6	57.1
Strategic Performance (Adapt)	32.4	28.3	25.6	45.5
% Change in Scope 3 Carbon Emissions	65.3	n/a	n/a	65.3
Resource Use	19.5	3.5	6.8	49.7
Supplier Concentration	65.7	68.7	59.5	66.7

- **Lead | Management of Sustainability Initiatives:** \$1B+ pharma companies topped the benchmark for this indicator.
- **Lead | Organizational Learning:** the pharma sector did slightly better than others on all elements of this indicator.
- **Build | Supporting Supplier Diversity:** mid-sized pharma companies performed well in supporting SMEs, and women-owned and minority-owned businesses.

Retail	Sector	0 - \$250M	\$250M - \$1B	\$1B+
Strategic Capabilities	52.2	49.2	50.9	53.6
Lead	54.3	49.8	54.3	55.9
Build	48.6	47.1	45.4	50.2
Transform	53.3	50.6	52.6	54.4
Strategic Performance (Adapt)	31.3	21.0	28.3	35.9
% Change in Scope 3 Carbon Emissions	60.7	n/a	47.6	64.0
Resource Use	26.8	n/a	10.6	31.0
Supplier Concentration	62.7	52.4	63.3	66.1

- **Build | Joint Long-Term Planning:** small retail companies were best in working with suppliers to plan long-term.
- **Build | Social Sustainability:** small retailers lagged in requiring suppliers to adopt codes of conduct related to the ethical treatment of workers and in enforcement and penalties.
- **Transform | Water Reduction Targets:** mid-sized retail companies stand atop the benchmark, while smaller retailers are at the bottom.

Act with today's logic

The historic events of 2020 pushed supply chains to their limits - and considering the scale of the shutdowns, it is a credit to supply chain professionals and the supply chain workforce that so many goods and inputs have continued to flow. But covid-19 has also underscored existing frailties in conventional supply chain strategies. While our survey respondents see the pandemic as the dominant threat in the coming year, it is just one of many concerns. Cyberattacks are cited by 46% of respondents and were the top concern for respondents in the consumer electronics sector. Raw materials disruption is a major worry for pharmaceutical companies, cited by 36% compared to 16% in consumer electronics and 14% in retail. "Another challenge," says Caddick, "is that multiple threats may materialize simultaneously."

Fostering modern supply chain resilience requires a wider set of capabilities than the conventional tools of the past. It is a journey companies will travel continuously, along with their upstream and downstream partners.

To aid them, this benchmark ranks key resilience-building capabilities across three industries. It has revealed a number of capability gaps that, if addressed, could position companies on safer ground for the uncertainties ahead. These include achieving deeper visibility through more increased integration of suppliers into systems and activities, data governance and data exchange protocols, proactive collaboration to improve the credibility of sustainability and emissions initiatives, and stronger engagement between supply chain managers and executive leadership.

The greatest danger facing companies in today's era of turbulence may be their own failure to improve inherent resilience. While each industry and company faces unique supply chain dynamics, The Resilient Supply Chain Benchmark can be a first step in understanding the critical capabilities driving resilience, building the case to invest in modern supply chain resilience and enabling companies to thrive even as risks intensify.

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