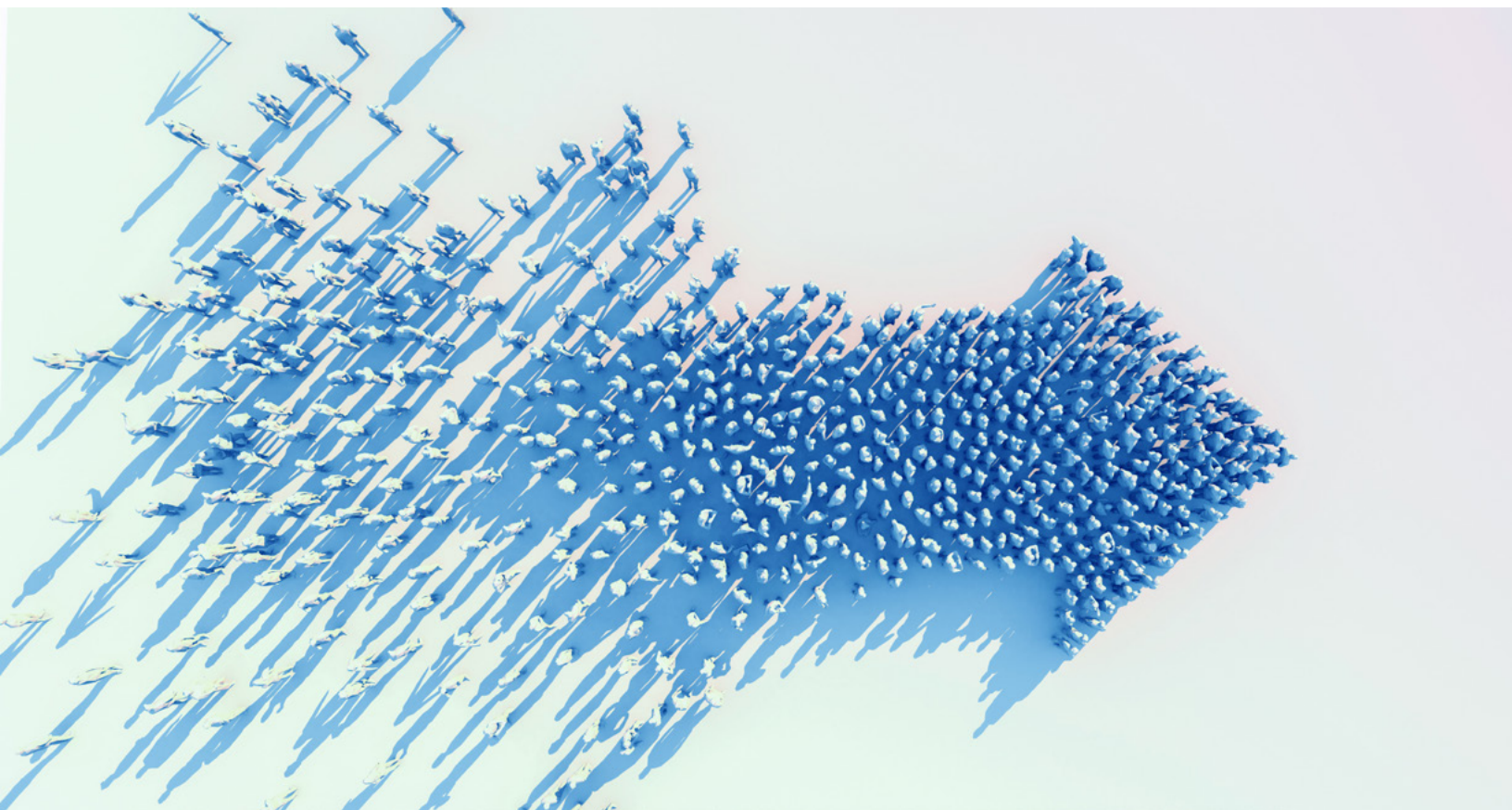


Operations Practice

Rethinking operations in the next normal

The resilience that businesses have developed in the face of disruption can provide a new foundation for growth—provided leaders seize the moment to build on what their people have achieved.

This article was written collaboratively by global leaders in the McKinsey Operations Practice, including Nancy Busellato, Riccardo Drentin, Sunil Kishore, Sumesh Nair, Maximiliano Schlichter, and Aishwarya Singh.



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Operations functions—including procurement, supply chain, and manufacturing—are at the forefront of managing the challenges and finding new ways of working in light of global trends and disruptions. The COVID-19 pandemic has accelerated the pace of change, creating an inflection point. Companies have relied on their operations functions not only to maintain day-to-day operations, which has itself been challenging, but also to position the business to survive and grow in the post-pandemic world.

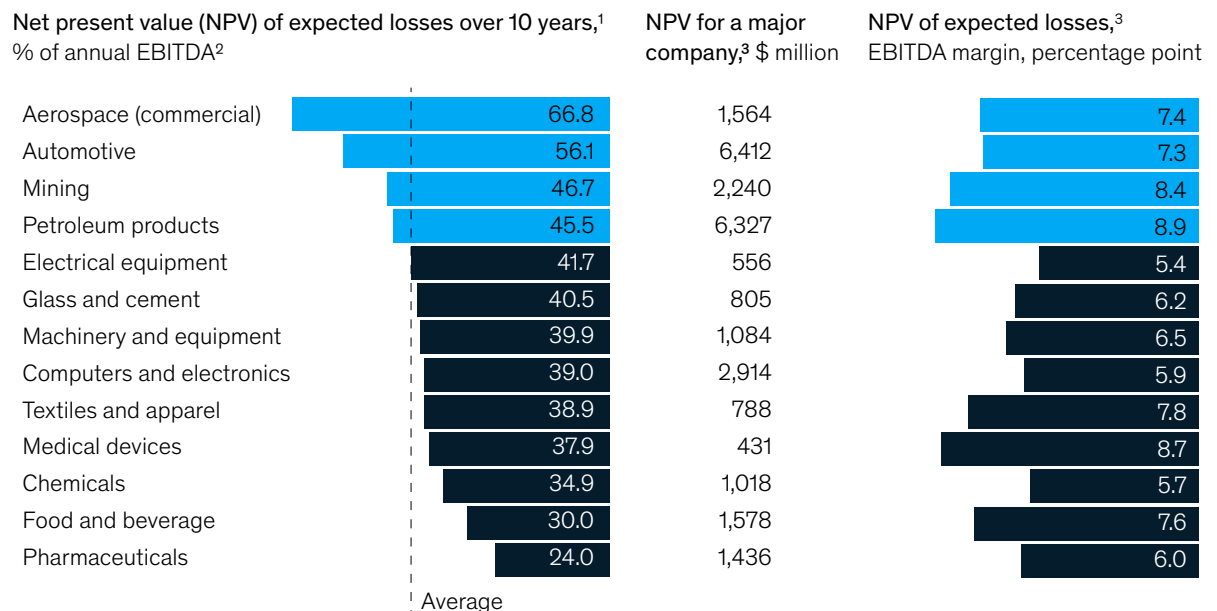
For example, regionalization has been accelerated by the pandemic, as countries closed their borders and protected their supply chains. Globalization was already under strain before the pandemic: the intraregional share of global goods trade increased by 2.7 percentage points between 2013 and 2018,

according to an analysis by the McKinsey Global Institute (MGI). Regionalization is most apparent in global innovation value chains, given their need to closely integrate many suppliers for just-in-time sequencing. This trend could become apparent in other value chains as well, as automation reduces the importance of labor costs and increases the importance of speed to market in company decisions about where to produce goods.

The pandemic is the latest, and most severe, disruption to affect value chains in recent times. The financial impact of these disruptions is significant. An MGI analysis found that over the course of a decade, the average company can expect disruption to cause losses equal to almost 45 percent of one year's profits (see Exhibit 1). This is equal to seven percentage points of decline, on average.

Exhibit 1

Supply-chain-disruption losses equal 42 percent of one year's earnings before interest, taxes, depreciation, and amortization on average over a decade.



¹Based on estimated probability of a severe disruption twice per decade (constant across industries) and proportion of revenue at risk due to a shock (varies across industries). Amount is expressed as a share of one year's revenue (ie, it is not recurring over modeled 10-year period). Calculated by aggregating cash value of expected shocks over a 10-year period based on averages of production-only and production and distribution disruption scenarios multiplied by probability of event occurring for a given year. Expected cash impact is discounted based on each industry's weighted average cost of capital.

²Earnings before interest, taxes, depreciation, and amortization.

³Based on weighted average revenue of top 25 companies by market cap in each industry.

Source: S&P Capital IQ; McKinsey Global Institute analysis

As many companies have learned over the past year, many operations functions are not sufficiently prepared to handle the shocks. These functions were built for an earlier era, when change was more gradual, disruptions were less frequent, and customer expectations were lower. Today, companies need greater transparency into demand, supply chains, and production capabilities, so that they can respond proactively or in real time to rapidly changing conditions.

On the other hand, these disruptions are also leading to growth. In the consumer-goods industry, for example, e-commerce experienced the equivalent of 10 years' growth in the first three months of the pandemic.

Considering that operations disruptions—whether arising from geopolitics, technology, climate change, or disease—are becoming increasingly frequent, incremental improvements will not be sufficient to prevent significant revenue losses. Operations leaders must fully rethink their organizations and capabilities to deliver not only short-term financial improvement, but also longer-term value creation through efficiency, resilience, agility, and digitization.

The challenges—and potential—of today

Cost efficiency remains a perennial challenge. Ongoing price erosion has increased pressure on organizations to better manage their costs and cash position and rapidly improve the bottom line. The need for action is particularly strong in technology and advanced industries (such as semiconductors), which have experienced price erosion of 5 to 20 percent annually in recent years. Moreover, in several industries, the pandemic changed or eliminated sources of revenue virtually overnight.

At the same time, resilience has gained equal importance alongside cost efficiency as a driver of operations-related decisions. The pandemic has exposed global operations to new risks related to manufacturing and supply chains, such as the increased regionalization of production and supply. The need to comply with international trade restrictions and other regulations (such as for data privacy) has created incentives for companies to

consider slowing down, or even reversing, some part of the globalization of the past few decades.

To achieve their goals for cost efficiency and resilience, companies are working to become more agile in responding to fluctuations in demand and supply—a quality that will also help companies service growth in demand as economies and customers start to recover from the pandemic. The need for agility has also made it essential for operations functions to connect more closely with commercial teams, so that both sides can deepen their visibility into demand, assess scenarios, and undertake mitigating actions as needed.

The adoption of digital technology provides an opportunity for companies to promote efficiency, resilience, and agility. The pandemic has accelerated the digital transformation of organizations at an unprecedented pace, as companies had to pivot quickly to serving their customers remotely and establishing virtual workplaces for their employees.

Five imperatives to drive success

In our experience, the effort to rethink operations in the new normal can be guided by five imperatives (Exhibit 2).






Rethink the supply-chain vision to enable agility, customer centricity, and resilience

Companies can reshape their supply chains to respond in an agile way to changes in both customer demand and supply, an evolution that will rest on a customer-centric vision in which processes and priorities are aligned to demand trends. It requires segmenting the customer base so that the company can cater to each segment's distinctive needs. Customer centricity is supported by rigorous scenario planning to stress-test end-to-end operations, in particular for high-importance or high-margin products.

Building resilience means reconfiguring the supply chain and the supply base to minimize disruptions and other impacts arising from economic and political uncertainties. For example, companies can develop alternative suppliers for critical components to reduce single-source dependency. They can also

Exhibit 2

There are five imperatives to drive success in rethinking operations in the new normal.

Rethink the supply-chain vision		Reshape the supply chain to enable agility, customer centricity, and resilience Develop a customer-centric vision in which processes and priorities are aligned to demand trends
Integrate with stakeholders		Engage with stakeholders from end to end by building trust based relationships with commercial teams, customers, and suppliers
Deploy and scale digital across operations		Develop and test digital use cases in selected operations functions and processes Scale up successful use cases to capture the full benefits
Consider total costs from a strategic perspective		Consider all possible implications of cost reduction beyond the product itself, to include sourcing, supply, and servicing—while enabling growth
Reimagine future capabilities		Embed new ways of working that proved effective during recent times—throughout the organization

ensure buffer capacity in manufacturing facilities (their own and those of their supply partners) to enable fast reactions to demand changes. One manufacturer, for example, determined that just one plant was a critical point of failure for an entire class of products. It pursued a series of actions to add buffer capacity and mitigate the risks, including qualifying backup plants, adding test capacity at plants, and optimizing or adding safety inventory based on risk exposure.

Companies can assess the resilience of their end-to-end supply chain by setting out clear assessment criteria for each main supply-chain area, then scoring itself on its resilience level relating to each criterion (Exhibit 3).

Integrate with stakeholders

To provide the foundation for resilience, operations teams will want to integrate with stakeholders from end to end: internally, such as with commercial

teams, and externally, with customers and suppliers. This process requires building trust with stakeholders. For example, the business will typically shift from a transactional relationship with suppliers toward a more collaborative approach, enabled by mutual trust and transparency among the parties. As potential disruptions encourage a return to regionalism, trust becomes more important than ever for maintaining global supply chains and driving faster decision-making.

Embed and scale digital across operations

Digital solutions are essential to enable efficiency, resilience, and agility in operations. Companies can develop and test digital use cases in selected operations functions and processes, then deploy them at scale to capture the full benefits. Several use cases show particularly high potential.

Data-driven decision-making. A fully digital spend-insight solution can help identify and prioritize

Exhibit 3

Companies can establish clear criteria for assessing the resilience of their end-to-end supply chains.

				Resilience level			
				High	Medium	Low	
Procurement	Manufacturing		Inbound warehousing (raw materials)		Outbound warehousing (finished products)		
Assessment criteria							
Substitutability of suppliers		Substitutability of plants, incl. factors driving product customization		Raw-material inventory flexibility (shifting inventory across warehouses)		Finished-product inventory flexibility (shifting inventory across warehouses)	
Concentration of component sourcing by country		Concentration of manufacturing by country		Geographic concentration of raw-material inventory hubs and warehouses		Geographic concentration of inventory in finished-product warehouses	
Reusability of components by product family		Manufacturing partners' reliability in responding to orders and requests		Visibility and traceability of components across warehouses		Visibility and traceability of products across warehouses	
Depth of supply chain (eg, suppliers and subcontractors of component suppliers)							
Suppliers' financial and strategic dependence on manufacturer							
Overall assessment		Overall assessment		Overall assessment		Overall assessment	

opportunities for buyers. When implemented well, such a solution accelerates and improve decision-making, enabling buyers to focus on higher-value activities. Additionally, demand-sensing and machine-learning algorithms improve demand forecasting by connecting data pools that are internal (such as historical demand and orders) with external sources (such as macroeconomic indicators).

Data-led optimization. An integrated sales and operations planning (S&OP) cockpit can guide scenario-based decision-making for the supply chain. The cockpit enables decision-makers to maximize revenue and margins while optimizing trade-offs on inventory and costs, such as by

improving the distribution-network strategy and routing based on demand hotspots. Likewise, digital monitoring of factory performance and utilization fosters data-led decision-making on manufacturing fulfillment. The resulting insights allow managers to make real-time decisions on channeling demand to the right factories. Hub managers, armed with data that gives them visibility into demand and future supply, can better optimize inventory and transport costs in response to changing conditions.

A data-driven exception-handling process, for example, helps companies meet unexpected changes in demand. In one case, a company improved service levels through data-driven,

proactive identification and mitigation of short-term risks arising from demand-supply gaps for customer orders. It now forecasts an improvement in on-time in-full performance (OTIF) of 10 to 15 percentage points.

Companies can further use data modeling to redesign their supply-chain strategies. One manufacturer of highly complex products digitally modeled the trade-offs between cost, inventory, and service for individual products to transition from a traditional make-to-stock replenishment mode to a more flexible and advanced make-to-order approach—while building capabilities along the way. A medtech manufacturer used digitally enabled clustering of potential suppliers to reveal the capabilities they had in common, a strategy that allowed the company to expand its supplier base by 600 percent. At an industrial-tools maker, clustering identified request-for-qualifications-ready suppliers for highly complex parts that it had been previously unable to source.

Risk management. Proactively managing short-term supply risks becomes possible by implementing a system that connects customer orders, demand, supply plans, components, and finished-goods inventory. An analytics engine can then identify short-term risks and recommend actions for mitigation.

End-to-end performance management and visibility. Connecting data sources for end-to-end transparency of inventory—from suppliers (for component inventory) to manufacturing (whether internal or external) and on to warehouses and the customer—facilitates the management of operational metrics for suppliers and employees. More broadly, establishing end-to-end visibility across operations can yield insights that drive strategically important decisions, while also reducing response times by accelerating root-cause analysis into problems. For instance, by enhancing visibility into component risks beyond tier 1 suppliers down to tier 2 or even tier 3, companies can better assure they meet crucial service-level metrics, such as on-time delivery.

Consider total costs from a strategic perspective

Many companies already consider the total cost of ownership (TCO) for products across categories. But reducing all costs related to a product might not always be the best solution. Typically, the optimal TCO is not the sum of the best cost scenarios for the core elements of a product, because some trade-offs across cost categories might be required to ensure resiliency. Moreover, the more advanced TCO assessments go beyond the product itself to consider costs related to sourcing, supply, and servicing.

As a result, a deeper TCO mind-set requires a more holistic approach that considers all possible implications of cost reductions. Stress tests may be required to avoid flawed assumptions, such as accounting only for the most optimistic scenarios. A TCO assessment may also point to the need to rationalize SKUs, particularly in the long tail, so that the company can invest its limited resources in the most profitable products.

Among the key costs to address with a TCO mind-set are those related to quality. Quality costs extend beyond remediation and warranty expenses, as poor quality can severely undermine the company's ability to serve customers. Over the long term, therefore, the solution is to embed quality into the organization's DNA, fostering a first-time-right culture that prevents unnecessary delays and slowdowns which can have exponentially negative effects on the overall business.

Companies must ensure that an overly rigid TCO mind-set does not impede efforts to use their supply chains to enable growth. An agile supply chain allows companies to pursue growth and strategic advantages by adapting to market changes faster than competitors do. To capture these opportunities, companies evaluate the trade-offs among costs, service levels, growth, and working capital. This may require new KPIs that incentivize people to consider these trade-offs, and to break down organizational

silos that limit people's ability to see the connection between spending and the pursuit of growth opportunities. New business processes—such as sales and operation planning and integrated business planning—further allow companies to evaluate the trade-offs and take appropriate actions.

Reimagine future capabilities

Digital and technology disruptions are driving dramatic changes in ways of working, creating the need for companies to focus on capabilities that promote agility. In 2017, MGI research found that on average, approximately half of workforce activities could be automated with proven technologies. The report estimated that by 2030, about 375 million workers globally would need some form of retraining to change jobs or upgrade skills significantly. A 2021 analysis of eight major economies estimates that up to 25 percent more workers may need to switch occupations than before the pandemic. But in a 2020 survey, 87 percent of executives said their companies were not adequately prepared to address the skills gap.

Together, these trends underscore that now is the time to think about how to extend and build upon the day-to-day changes that have proved effective for the business. Depending on the company, effective new ways of working may include conducting remote negotiations with suppliers, allowing employees to work from home, and building local capabilities to avoid the need to fly in experts.

Companies are finding new ways to use remote sessions to fortify relationships and partnerships with suppliers. During a “supplier hour” event, key

executives from the procurement function, sales function, and business units can meet suppliers with their cameras turned on to maintain a more human feel. Executives provide an overview of the market context, different businesses, and business developments (such as new products launches or market entries) that are pertinent to suppliers. They also set aside time for a Q&A session. The event sends a clear message about collaboration and the supplier relationship, detailing what the partnership will look like and what each party can contribute to the other.

Organizing capabilities in a less hierarchical, more flexible operating model is another significant opportunity, one that can promote cross-collaboration between operations and other units, such as production, marketing, and finance. Success requires setting common goals and embracing a culture in which a diversity of views, including across different functions, ultimately leads to better decisions and results.

Organizations can now apply the lessons they learned during the pandemic to re-envision and reshape operations functions. The goal is to go beyond the perennial challenge of cost efficiency and include resilience as a driver of operations-related decisions. Digitization and integration with stakeholders from end to end provide the foundation for building more resilient operations. Successful organizations will gain the ability to respond to changing conditions with greater speed and agility, thereby mitigating the impact of unexpected events.

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