



THE DIGITAL PATH TO BUSINESS RESILIENCE

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RESILIENCE IS TOP OF mind for executives today, and it will prove to be a key factor for winning in the 2020s. As the world of business grows increasingly uncertain and volatile, companies that have purposefully developed capabilities to tackle ambiguity and unpredictability—in a word, resilience—are most likely to thrive.

Companies' resilience is being tested as never before. Consumer spending in the US fell by almost 20% during the first two months of COVID-19's explosive spread across the country, according to the US Department of Commerce, even as the pandemic disrupted 75% of supply chains, according to the Institute for Supply Chain Management.

Customer priorities and touch points are changing rapidly, and the ongoing massive shift to remote working poses a major risk to companies' IT infrastructure. Consequently, as a recent BCG study shows, approximately 60% of companies expect to report at least a 10% decrease in revenue and earnings in 2020.

In this bleak context—and in general—resilience is a key driver of value. Some companies outperform their peers during downturns, while many others lose ground or don't survive. In the past four downturns since 1985, about one in seven companies increased both its sales growth rate and its profit margins, according to a 2019 BCG study. Despite the challenging circumstances, these successful companies grew their sales by 14 percentage points more and improved their margins by 7 percentage points more than the 44% of companies that declined on both parameters.

Even before the COVID-19 crisis erupted, many companies were struggling to keep pace with technological change. The challenge has only accelerated since the pandemic began, bringing a growing realization into sharp focus: the future of work and life will be more digital than people previously imagined. With almost every organization having to depend on data, analytics, digital tools, and automation, digital technologies will constitute an increasingly critical element of business resilience tomorrow.

The Phases of Resilience

Much has been said about resilience in recent times, but people often overlook its duality. It isn't just about springing back from a crisis, as commonly understood; it is also about springing forward into a new reality.

A resilient company, our studies show, responds immediately to safeguard itself from an exigency, recovers from adversity so that it is in a position to outperform its peers, and then reimagines its business to get—and stay—ahead of rivals in an ever-changing future. Tackling the current COVID-19 crisis, for instance, requires companies to plan for three phases, each with its own objectives. (See Exhibit 1.) Depending on its geography and industry, a company could operate in more than one phase simultaneously.

By now, most companies have addressed the immediate priorities of the Respond phase of resilience—by, for instance, keeping employees safe, changing their ways of working, and dealing with key operational issues such as supply chain disruptions. Their focus now is on restarting and rebounding by adjusting quickly to the new realities on the ground. During that Recover phase, business will have to cope with uncertainty in demand, supply, labor markets, and credit availability. Traditional forecasts and operational processes are unlikely to be effective, so companies must develop data-driven sense-and-respond ap-

proaches to tackle the volatility and must learn to adjust rapidly to fast-changing scenarios.

The process of building resilience also has a critical Reimagine phase, which involves preparing the business for the future. The current situation is likely to result in permanent shifts in consumer and employee behavior, and some industries and business models will be irreversibly disrupted. As the nature of competition shifts, however, resilient companies will have a clear opportunity to emerge stronger. For this reason, companies should start laying the foundations of sustainable advantage by building resilience now.

Why Digitally Enabled Resilience Matters

A company needs to embed resilience in every aspect of the organization, from its go-to-market approach to its operations to its most critical infrastructure. Vulnerabilities in any area could affect the business's ability to survive and thrive.







Through our work with companies across industries and around the world, we have identified six dimensions of resilience on which business leaders must focus: protecting and growing the top line; developing agile operations; enabling people; accelerating the adoption of data and digital platforms; enhancing cybersecurity; and strengthening financials. (See Exhibit 2).

EXHIBIT 1 | The COVID-19 Crisis Has Forced Companies to Build Resilience in Three Phases



Source: BCG analysis.

EXHIBIT 2 | Resilience Has Six Dimensions

	Protect and grow the top line	Rapidly identify and address changes in customer needs with data-driven and digital marketing, sales, and pricing
	Develop agile operations	React quickly to and manage disruptions in supply chain, logistics, manufacturing, development, and corporate functions
	Enable people	Empower employees to work and collaborate effectively in any circumstances; adapt with new approaches to talent management and capability development
	Accelerate data and digital platforms	Increase the modularity and availability of core IT infrastructure and applications; democratize data to enable data-driven and AI-enabled decisions across silos
	Enhance cybersecurity	Safeguard digital assets, and react quickly to security breaches in an increasingly distributed environment by using secure technologies and procedures
	Strengthen financials	Ensure financial liquidity with an operating expenses-driven cost model, reduced total cost of ownership, and data-enabled policies to manage cash and working capital

Source: BCG analysis.

Resilience comes from each of these dimensions, but business leaders must also consider them in combination, in order to gain resilience from their interactions.

Technological capabilities are instrumental in building resilience in all six dimensions. Resilient companies are likely to follow an operating model that adopts an integrated view of the relationship between people and technology—what we call the *bionic company*—which brings out the best in both. Doing so results in superior financial outcomes, almost doubling earnings growth and contributing to a 2.4x increase in the growth rate of enterprise value.

Digital transformation has therefore become more crucial than ever. In a recent BCG survey, 75% of executives agreed that they regard digital transformation as becoming more urgent in light of the COVID-19 crisis, and 65% said that they anticipate increasing their investments in digital transformation. As almost every organization's dependence on digital technologies grows, it is hardly an exaggeration to say that adopting and managing digital technologies will be critical to business resilience.

Done right, a digital transformation will not only build long-term resilience, increasing speed to market, workforce productivity, and stability. It will also deliver short-term financial gains. (See Exhibit 3.)

Companies that use digital levers can expect their profit margins to increase, on average, by 12% to 20%. They will generate as much as 50% of the additional profits in the first year, thereby generating the resources needed to fund the rest of the transformation journey. This characteristic is particularly relevant today. More than 80% of transformations will be self-funded, according to BCG research, and most companies expect that they will have to institute tighter funding policies in the current circumstances.

A word of caution, though. A BCG study suggests that fewer than 30% of companies successfully capture value from digital transformations. Their success depends on defining a clear vision that is closely linked to strategy and value, ensuring leadership commitment and governance of results, and building critical technological and human capabilities.

EXHIBIT 3 | Digital Transformations Build Long-Term Resilience and Increase Profitability



PERFORMANCE

12% to 20% additional EBIT¹
(about half of it within 12 months)



AGILITY

40% to 50% faster speed to market²
(in about 3 months)



ENABLEMENT

20% to 30% higher workforce productivity³
(about half of it within 6 months)



STABILITY

Up to 60% less IT error and rework⁴
(in 6 to 9 months)

Source: BCG analysis and case experience.

¹ According to BCG's Performance Improvement through Digitization 2019 study, based on analysis of 40 digital resilience levers.

² Enabled by applying advanced analytics to economic indices and establishing a control tower for high-frequency demand forecasts.

³ Achieved with AI and smart working tools such as chatbots, workflow automation, and decision-support systems.

⁴ From BCG experience in the insurance sector, achieved by designing cybersecurity in a uniform way for all applications and platforms.

Three Steps to Develop Digital Resilience

It's important for companies to build digital resilience when and where they will need it most. Many of them have already increased their investments in secure remote working technology and reduced their capital expenditure to respond to their immediate needs, according to a recent BCG analysis of the investment priorities of around 700 IT executives in the US. (See Exhibit 4). Companies also continue to invest in the digital levers that will allow them to grow during the recovery by, for instance, ensuring supply chain continuity and digitizing critical parts of the business. Most are also continuing to invest in strategic priorities to build ongoing resilience, by expanding and strengthening data and digital platforms, and doubling down on automation.

Given today's acute resource constraints and the pressing need to accelerate change programs, prioritization is critical. Companies can follow a three-step approach to tailor priorities to their specific situation and needs. Their decisions will depend on endogenous factors, such as their organization's current resilience maturity—including financial strength—and on exogenous factors, such as the impact of COVID-19 and the potential for digital disruption.

STEP 1: ADDRESS IMPERATIVES TO RESPOND AND RECOVER

The starting point in this three-step process is to address the issues resulting from lock-

downs and to support business performance as markets recover. Companies must tailor their actions to their particular contexts, but most companies have taken a number of common actions in the Respond and the Recover phases. (See Exhibit 5.)

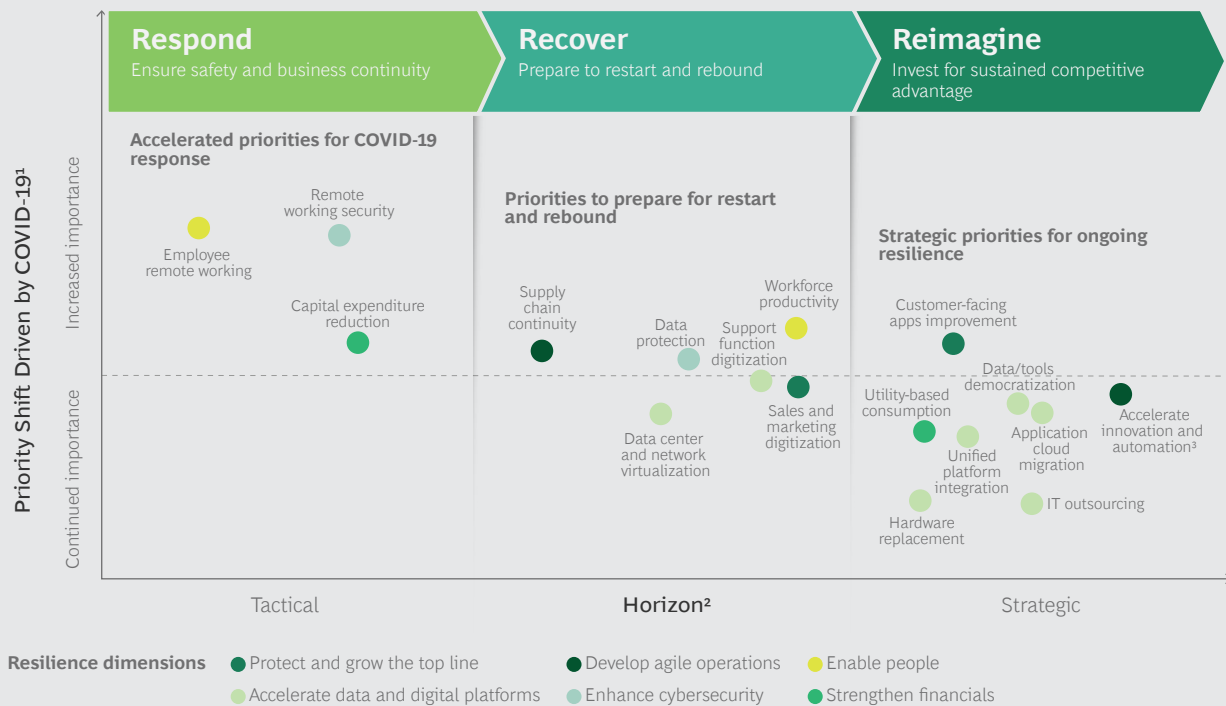
Many companies, we find, struggle in their efforts to respond and recover rapidly. In their initial response, companies must focus on business outcomes that will deliver the most value in the shortest time, such as protecting and growing the top line and developing agile operations. That's why efforts to switch to digital marketing and e-commerce and to develop a data-driven supply chain are often high on the agenda today.

To accelerate during the recovery, a company must focus on tangible, short-term opportunities, and employees must develop new skills and adapt to new ways of working. Most changes will relate to the development and deployment of digital capabilities, so business leaders need to move closer to technology teams.

STEP 2: REIMAGINE THE FUTURE AND SET AMBITIONS

Once companies have dealt with their immediate priorities, they must turn to their ambitions for the future—in particular, preparing to win in the new reality. They need to determine the scope of their ambitions and the pace at which they must develop resilience.

EXHIBIT 4 | IT Executives' Investment Priorities Span All Resilience Phases and Dimensions



Source: BCG COVID-19 IT Buyers Sentiment Survey, April 24–May 5, 2020 (N = 674).

¹ Self-reported change in importance due to the COVID-19 pandemic, based on a scale from “much less” to “much more.”

² Self-reported priority, calculated as the relative importance of long-term priorities versus short-term priorities.

³ For example, with AI and predictive analytics.

EXHIBIT 5 | Key Imperatives in the Respond and Recover Phases

	Respond Ensure safety and business continuity	Recover Prepare to restart and rebound	Reimagine See Exhibit 7
Protect and grow the top line	Boost digital channels to replace or augment traditional sales channels	Reignite the commercial engine in the right markets at the right time	
Develop agile operations	Stabilize operations to meet demand during the crisis	Ramp up and automate operations, balancing speed, cost, quality, and safety	
Enable people	Enable employees to work and collaborate remotely	Rethink skills and working models to deliver value in the new reality	
Accelerate data and digital platforms	Keep lights on for IT infrastructure, applications, data, and end-user services	Reset the technology portfolio and cost to maximize value	
Enhance cybersecurity	Deploy secure technologies to protect onsite operations when accessed remotely	Scale cybersecurity systems, and extend them to supply chain and e-commerce partners	
Strengthen financials	Reduce discretionary spending to preserve cash, and secure financing	Continuously adjust the cost structure to demand, and optimize the asset portfolio and net working capital	

Source: BCG analysis.

In setting the scope of their ambition, companies should identify specific, critical resilience dimensions on which to differentiate themselves. Knowledge-based companies, such as those in financial services, will want to be best in class at accelerating data and digital platforms and at enabling employees. Those with a production focus, such as manufacturers and oil and gas companies, will strive to become leaders in developing robust and agile operations. Companies with a frontline focus, such as retailers, will emphasize, among other things, developing resilience in growing the top line.

Two key factors will determine the urgency and need for resilience. (See Exhibit 6.) One is the expected financial impact of crises such as COVID-19 in a sector, indicated by the current level of financial distress. The other is the potential for digital disruption, which can be measured using BCG’s Digital Acceleration Index (DAI).¹ Companies in industries that face lower levels of financial distress and risk of disruption can afford to take a more focused and financially pragmatic approach to investing in digital resilience.

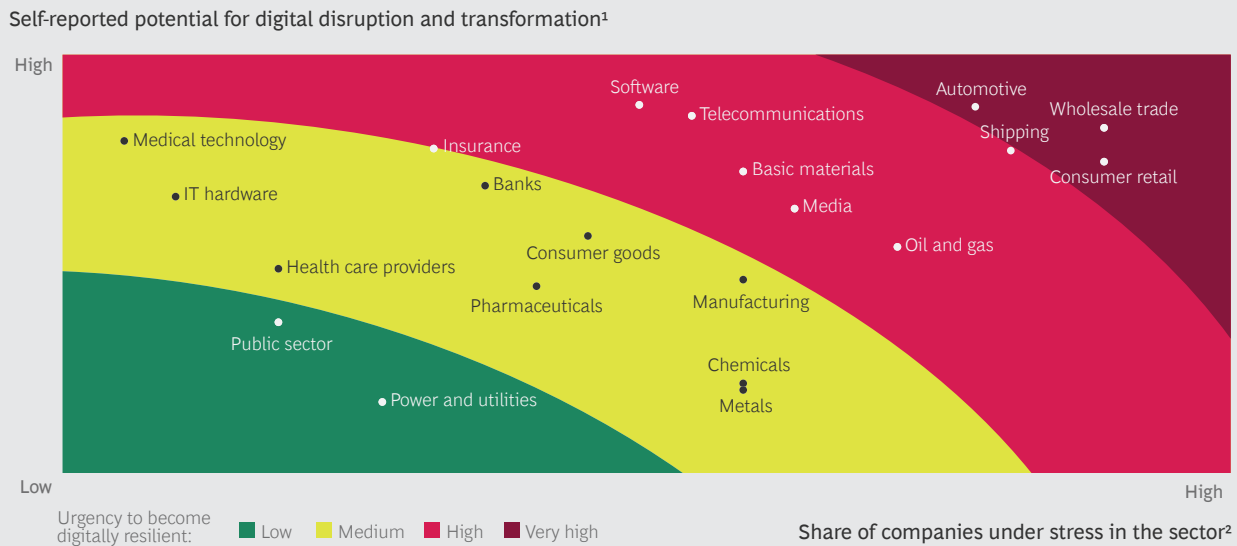
In sectors where both the potential for digital disruption and the amount of financial distress are high, businesses should treat investing in digital resilience as a matter of urgency. For example, after COVID-19 hit a premium beauty products retailer in Europe hard, the company used advanced analytics to more accurately predict daily demand. This enabled the retailer to quickly reduce its order volumes by 30% even as it prevented stock-outs, thereby increasing its working capital. Buoyed by its success, the company is now using machine learning to develop state-of-the-art demand-management capabilities. Doing so will allow it to respond to future disruptions even more effectively.

STEP 3: BUILD SUSTAINABLE ADVANTAGE

Finally, companies must invest in developing sustainable advantage by building long-term resilience. To do that, they need to identify the gaps between their ambitions and their current resilience maturity.

Each resilience dimension encompasses rising levels of capabilities at three distinct levels of maturity, which we label *exposed*,

EXHIBIT 6 | The Urgency to Become Digitally Resilient Varies by Sector



Sources: BCG Henderson Institute and the BCG Digital Disruption Index, part of the BCG Digital Acceleration Index.

¹ Measured by the potential of digital to address customer pain points, the ability to scale digital offerings, the amount of venture capital for digital, and the threat to incumbents posed by new entrants from adjacent markets.

² Sectors are ranked by their share of companies with a greater than 15% probability of default as implied by five-year credit default swap as of May 29, 2020.

viable, and future-ready. (See Exhibit 7.) By referring to this exhibit, business leaders can quickly assess their company’s maturity on each dimension. They can also use detailed assessments, such as BCG’s DAI, to gain precise insights into where they stand and what actions they should take for maximum impact.

A company must immediately take steps to tackle the dimensions on which it is exposed. The minimum goal should be to ensure that the company is viable—if not future-ready—on all six dimensions. That’s particularly true in the areas of financial strength and cybersecurity, where vulnerability may spell disaster during the next crisis a company faces. Once a company is viable on every dimension, it can work to

become future-ready on the dimensions that it believes are necessary to weather future crises and to differentiate itself in the marketplace.

After a company has determined its priorities, it must rethink its digital strategy and roadmap, and reset its investment portfolio accordingly. Projects that were top of mind six months ago may no longer be priorities, and staying the course until the next planning cycle is likely to be a losing strategy.

THE COVID-19 CRISIS has turned the spotlight on the urgent need for companies to become resilient, and the importance of digital technologies in making this transformation. As markets and economies

EXHIBIT 7 | Each Resilience Dimension Has Three Levels of Capability Maturity—and Vulnerability

		Reimagine Invest for sustained competitive advantage		
		Exposed	Viable	Future-ready
	Protect and grow the top line	Limited online and remote sales; marketing using simple targeting without automation	Multichannel offerings and remotely enabled sales force, based on data-driven decisions and some automation	Customer journeys integrated across channels, with self-serve, personalized recommendations and automation
	Develop agile operations	Traditional operations with little or no ability to react quickly to new process requirements or disruptions	Digitally augmented operations to quickly identify and react to changes and external shocks	Fully digitized, highly automated, and IoT-enabled operations with E2E visibility, from supply chain to corporate functions
	Enable people	Culture of physical presence, with limited IT enablement; people working in traditional line and project structures	Flexible workforce able to collaborate and work in all circumstances; use of dynamic talent-sourcing models and focus on learning	Smart and agile ways of working with tech-augmented workforce; strong sense of connection and shared purpose
	Accelerate data and digital platforms	Legacy-heavy platform and scattered data; business and IT working in silos with low agility	Continuously available and fault-tolerant data and digital platform, based on cloud infrastructure	Architecture based on APIs and microservices, with fully functional data lakes that enable rapid innovation
	Enhance cybersecurity	Cybersecurity not centrally coordinated; high exposure to threats, especially in the supply chain and in remote work	Trained cybersecurity experts; technologies implemented for remote working, threat protection and detection, and recovery	Cybersecurity treated as a CEO-level priority; security operations center in place; secure supply chain and e-commerce platforms that include partners
	Strengthen financials	Limited cash management leading to liquidity stress; delayed processes and inhibited agility due to lack of digitization	Cash office with rigorous governance; RPA and AI-optimized processes that increase speed and forecast accuracy	Early liquidity warning system and asset-light business model; digitized processes for control, audit, and planning

Sources: BCG analysis.

are likely to continue to change rapidly, uncertainty will persist. Only a small group of resilient companies will be able to capitalize on the opportunity to grow stronger in the face of uncertainty. Investing in digital resilience will help companies accelerate out of crises quickly and create sustainable competitive advantage in the new reality.

NOTE:

1. BCG's DAI measures an organization's digital maturity on 38 digital dimensions, including, among others, strategy and roadmap; digitization of the value chain; new digital growth channels; people, technology, and data capabilities; and the digital ecosystem. A database of more than 8,000 companies provides benchmarks against peers across countries and industries.

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