



# 2020 Technology Digital Transformation Survey

BUILDING RESILIENCE & TRUST  
THROUGH TRANSFORMATION

**IBDO**<sup>®</sup>

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# Introduction

The tech industry is filled with disruptors, but behind the scenes they are also the disrupted.

Building groundbreaking innovation for others can't be done without transforming their own business, too.

The impacts of the global pandemic made clear that while tech companies must prioritize their role as enablers of digital transformation, they also need to practice what they preach.

The stakes are high for middle market tech companies (\$200 million - \$3 billion in revenue) to not just have a digital transformation strategy, but to get it right. In this industry, getting it right means setting new standards for customer experience and reliability, prioritizing security and privacy and betting on the right emerging technologies to power growth.

“

*As tech companies balance risk vs. innovation, their digital efforts paint the picture of an industry refocusing on the right infrastructure, ethics and experience to get ahead of regulation and also enhance trust with not only their customers but all stakeholders.*

”



**AFTAB JAMIL**

Partner and Global Technology  
Practice Leader, BDO USA, LLP

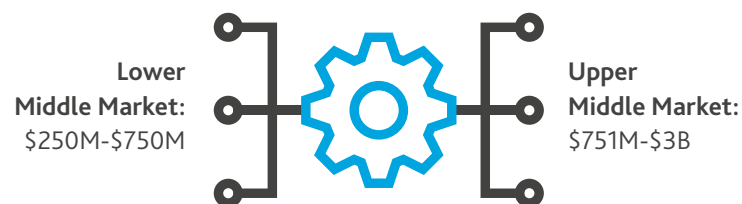
100% OF THE MIDDLE MARKET TECHNOLOGY  
COMPANIES HAVE OR PLAN TO DEVELOP  
A DIGITAL TRANSFORMATION STRATEGY.



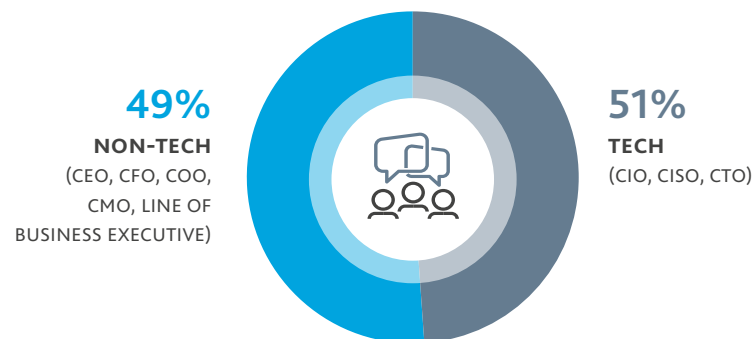
## Survey Methodology

BDO's 2020 Technology Digital Transformation Survey was conducted prior to the COVID-19 pandemic by Rabin Research Company, an independent marketing research firm. The survey included 100 C-level executives at middle market technology businesses, with annual revenues between \$250 million and \$3 billion.

### REVENUE BREAKOUTS



### EXECUTIVES SURVEYED



# Snapshot / 2020 Digital Outlook

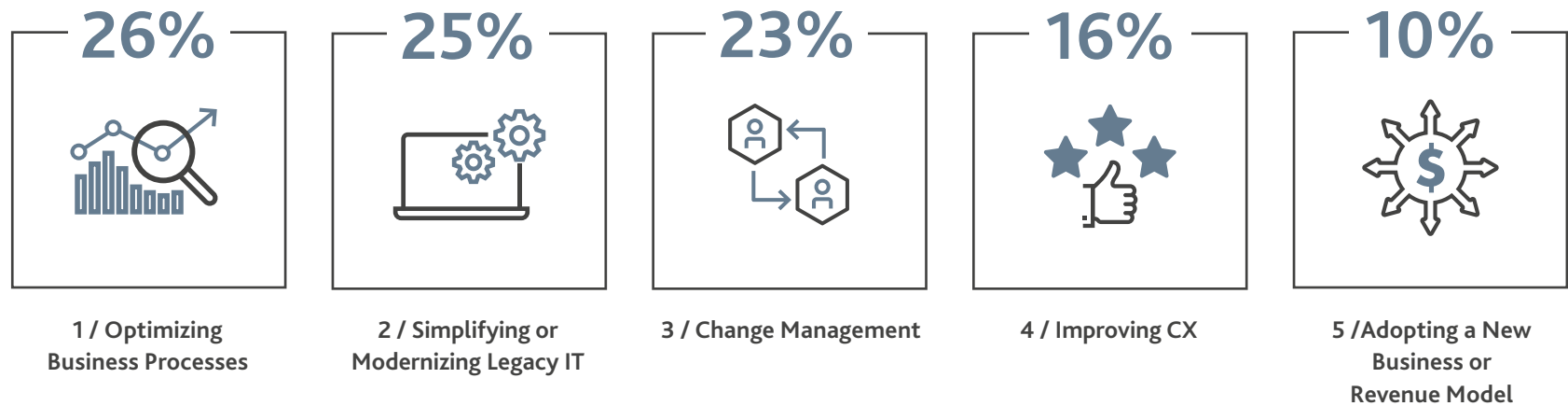
## A SNAPSHOT OF TECH EXECUTIVES' DIGITAL PLANS AND BUSINESS PRIORITIES

Digital transformation is no less critical amid a pandemic or economic downturn. Tech companies that can harness digital capabilities have a much better chance to survive the crisis and thrive in the turbulence that lies ahead.



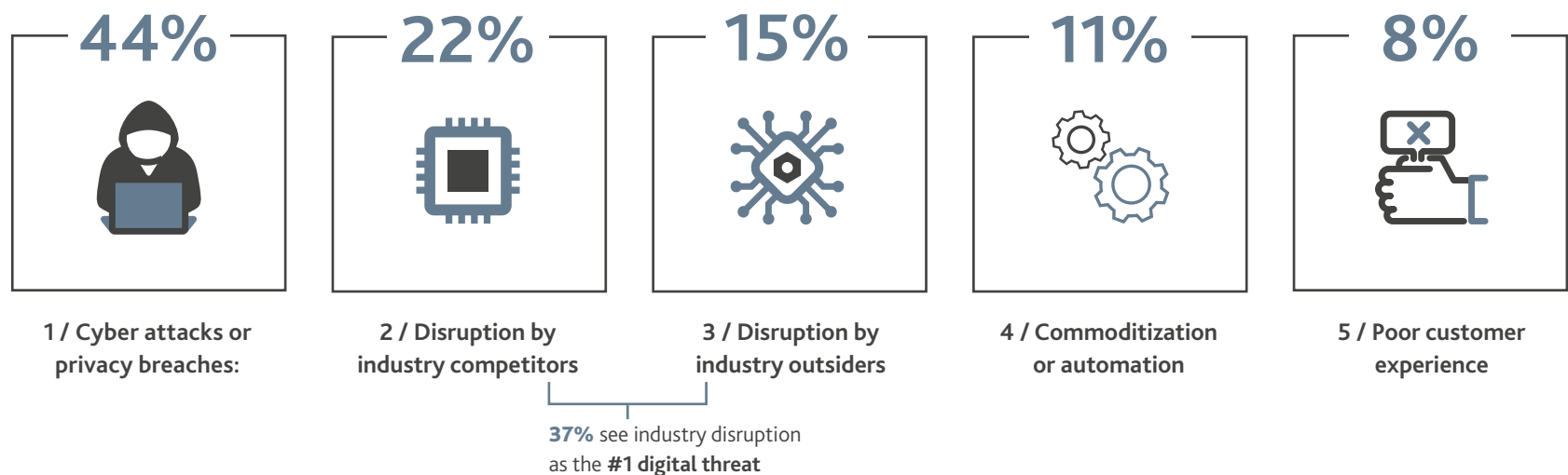
## FOCUSING MOST ON BUILDING THE RIGHT PROCESSES AND INFRASTRUCTURE FOR INNOVATION

### TOP DIGITAL PRIORITY NEXT 12 MONTHS\*



## LOOKING OUT FOR EXTERNAL THREATS COMING FROM HACKERS AND COMPETITORS

### TOP DIGITAL THREAT NEXT 12 MONTHS



\*Priorities for the next 12 months were named prior to the COVID-19 outbreak, so some may have been de-prioritized or put on hold.



# CX, SECURITY AND INFRASTRUCTURE AMONG TOP PRIORITIES

## TOP OVERALL BUSINESS OBJECTIVES

COVID-19 may lead tech companies to focus more on operational efficiencies and security in the short term. However, business objectives for the longer term are likely to hold steady as many tech companies showed resilience and even experienced an increase in demand through the crisis.

### Next 18 Months-3 years



**1.** Diversify Revenues



**3t.** Bolster Cyber



**2.** Modernize IT Infrastructure



**5.** Increase Operational Efficiencies

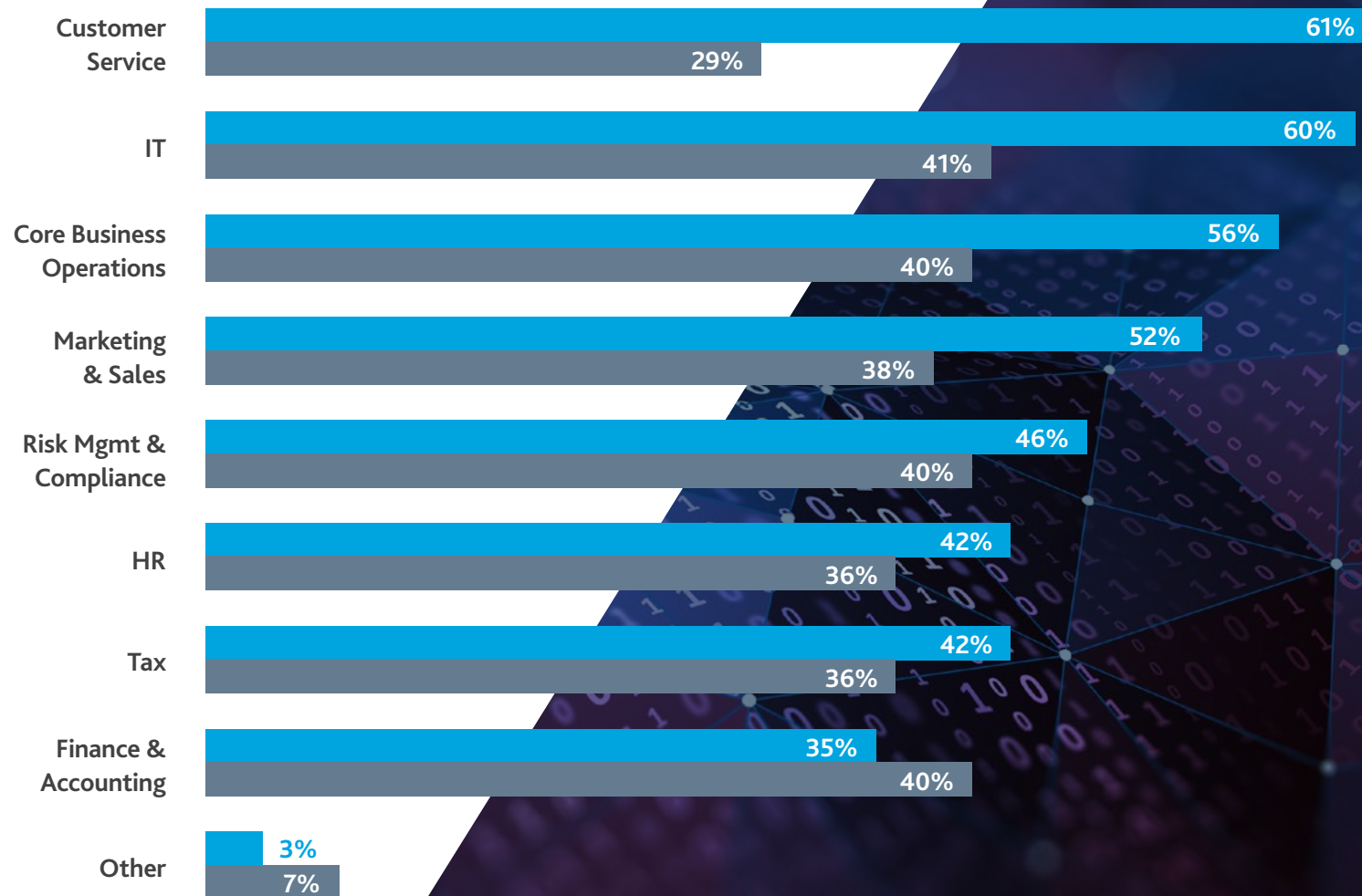


**3.** Increase Market Differentiation



**6.** Improve CX

## TRANSFORMATION FOCUS AREAS



● Projects Currently Underway    ● Projects Planned for the Next 12 Months\*

\*Projects for the next 12 months were planned prior to the COVID-19 outbreak, so some may have been de-prioritized or put on hold.

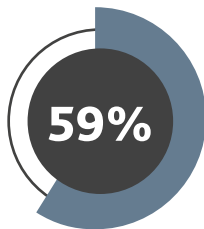


# Digital Transformation Value Drivers

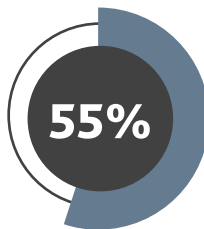


## 1 / Boosting Operational Efficiencies

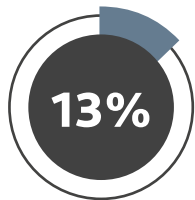
Tech companies know that to offer best-in-class solutions, they need to build them with best-in-class processes and technology. That's why—even before the COVID-19 pandemic—boosting operational efficiencies, improving processes and maturing IT infrastructure was a top priority for the majority of the tech industry. IT is also a key enabler of resilience in every organization, making investment more important than ever.



cite modernizing IT systems as a business objective for next 12-18 months



say reducing operational inefficiency is a top short-term business goal (next 12-18 months)



say immature infrastructure is their company's overall weakness



### #1 digital priority

for 2020 is optimizing business processes and organizational efficiencies

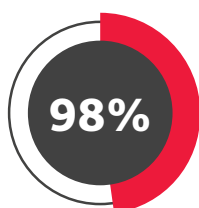
#### BDO INSIGHT

The transition from scrappy startup to fast-growth middle market is uniquely challenging for the tech industry. The cobbled-together processes and IT systems that worked at the startup stage may not scale with the business and can weigh the business down. Focusing on process optimization and efficiency is key to maintaining a lean edge. And while Wall Street may be more lenient on tech companies than those in other industries, expectations changing in the wake of less-than-stellar public debuts in early 2020 and the overall economic impact of the global pandemic.

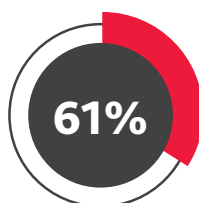


## 2 / Securing Trust

It's no secret that the tech industry's reputation has taken a few hits. But consumers' growing calls for data privacy and transparency and the risks of a cyberattack are being taken seriously. Especially now that the crisis has led to an increase in cyber threats, fending these attacks off is a crucial feature of resilience and invaluable for maintaining trust. A plurality of tech executives across the C-suite already viewed cybersecurity and data privacy as mission critical issues. Increasingly, this also means taking an ethical approach to data. The tech industry is ahead of its industry peers here: 79% have a formal data ethics policy in place, compared to 70% among middle market companies overall.



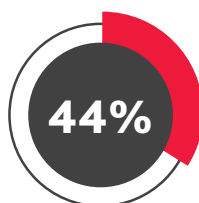
are currently taking or planning to take steps to comply with the California Consumer Privacy Act and other privacy regulations in the next 12 months



say bolstering cybersecurity is a **top short-term** business objective (next 12-18 months)



Investments in blockchain/DLT (currently deployed by 35% and being considered by 52%) indicate focus on **security and trust**

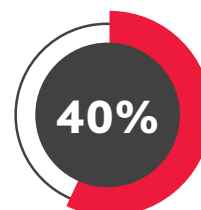


cite cyberattacks as the **top digital threat**



**1 in 5**

tech CFOs cited data privacy as their **top business priority, prior to the pandemic**



are planning digital initiatives in the area of risk management and compliance over the next 12 months

► **46%** already have projects underway in that arena

### BDO INSIGHT

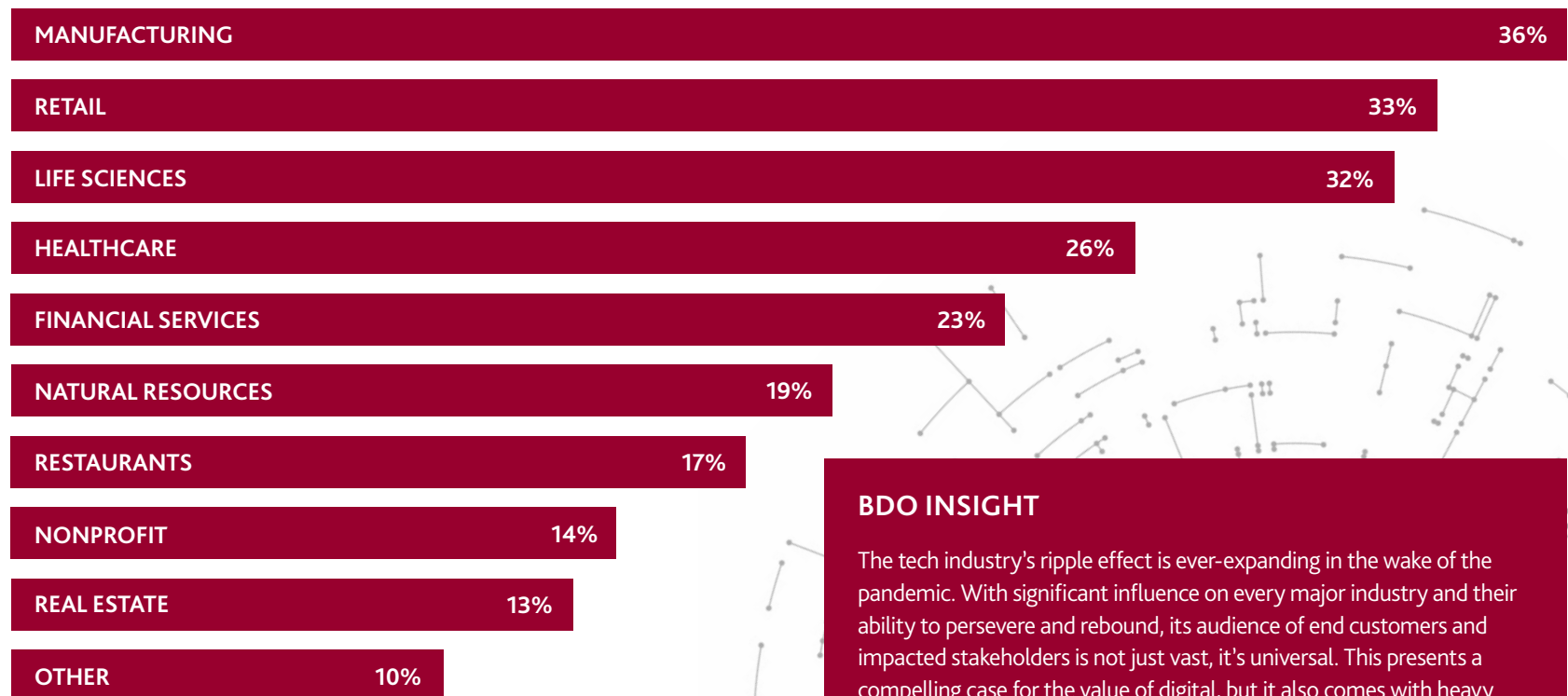
Companies in the tech industry have long been a target for cyberattacks, with hackers seeking everything from customer data to valuable IP. Threats increased as more business was brought online during the pandemic—escalating the risk for mistakes or negligence inside the business, cybercriminals, hacktivists and even nation states. As the stakes get higher and higher, investment in digital resilience is really an investment in digital trust. Because of several high-profile incidents of data misuse, tech companies are viewed as guilty until proven innocent. This means they need to go above and beyond the bare minimum standards for compliance, and proactively address emerging ethical issues like AI bias and data collection.



## 3 / Driving Industry Disruption

Tech companies' products and services are also critical drivers of numerous industries' digital transformation and resilience. Behind every omnichannel experience, mobile interaction with your doctor, online banking deposit and connected supply chain are technology companies who are partnering with industry leaders to advance and improve offerings. When every company thinks of themselves as a tech company, opportunities abound.

### TECH COMPANIES ARE HELPING TO DISRUPT KEY INDUSTRIES



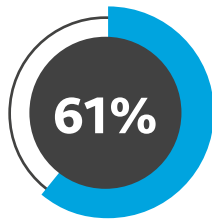
#### BDO INSIGHT

The tech industry's ripple effect is ever-expanding in the wake of the pandemic. With significant influence on every major industry and their ability to persevere and rebound, its audience of end customers and impacted stakeholders is not just vast, it's universal. This presents a compelling case for the value of digital, but it also comes with heavy responsibility. As groups like the Business Roundtable, which includes many top tech executives, promote the focus on social responsibility, tech companies are taking notice and taking action. They're increasingly asking not just "can we?" but "should we?" and we expect this more ethical approach will carry into the industries they collaborate with.

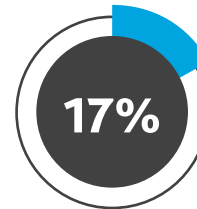
## 4 / Improving Customer Experience (CX)

In an industry known for speed, innovation and exacting standards for product development, it's critical to focus on the customer experience. Whether serving other businesses or consumers, the expectation for quality, customized and fast service is only increasing. The pandemic also gave rise to a new gold standard: reliability. If a tech company misses the mark with a customer, trust can be damaged permanently.

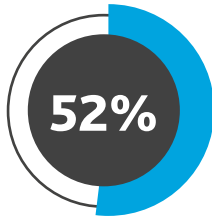
During a period of unprecedented economic disruption, customer retention can be the difference between sustaining through the crisis or not. That's why improving the customer experience remains a vital business objective. As customer behaviors shift, digital transformation can help provide customers with better service and, perhaps more importantly, identify unmet needs through a better understanding of behavior. Great CX can induce loyalty and drive both customer retention and acquisition, even during a downturn.



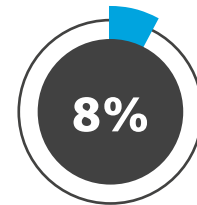
have digital projects underway in the **customer service arena**



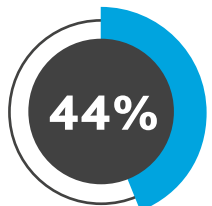
say a commoditized offering is their company's **overall weakness**



have digital projects underway in the **marketing/sales arena**



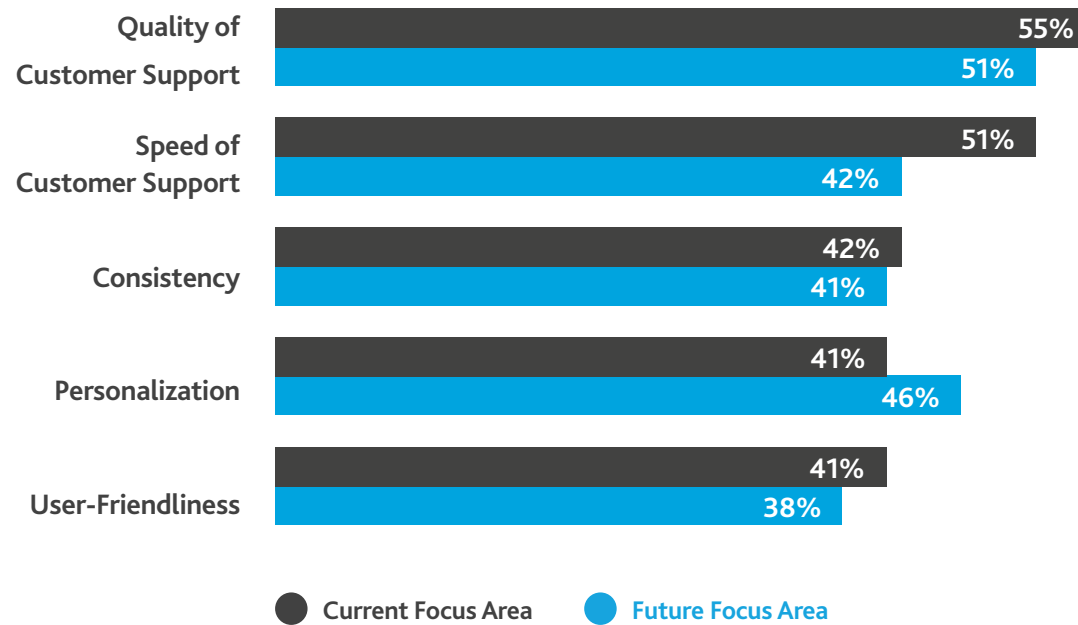
cite poor CX as their **#1 digital threat**



rank **CX-related strengths** (marketing/branding, convenience, customer service) as their **greatest competitive differentiator**



## THE ELEMENTS OF CX



“When assessing customer experience strategies, tech companies should follow the S.E.C. rule – simplicity, ease and convenience. The benefits are clear: increased customer satisfaction and retention. Having a better understanding of customer needs and desires can also provide meaningful intelligence for product development and, in some cases, build the case to develop new revenue streams.”

**MALCOLM COHRON**

National Digital Transformation  
Services Leader, BDO USA





## 5 / Generating & Diversifying Revenue

Historically, double-digit revenue growth year-over-year in the tech industry isn't cause for celebration; it's the standard. But sustaining sky-high growth rates beyond the startup stage is easier said than done, and the reality is that even if the pandemic raised the business case for many tech products and services, it also led countless businesses to trim costs. Many organizations face cash flow challenges due to the pandemic-related economic downturn, and for some, business priorities have shifted from growing revenue to diversifying it. Digital transformation is critical to both tactics. Diversifying revenues not only by introducing new products and services but by [exploring new paths to monetization](#) is key to long-term success.



### Diversifying revenues

is the most frequently cited long-term (18 months-3 years) business objective



## 75%

anticipate digital investments will drive increases in revenue over the next 3 years

### BDO INSIGHT

The scariest word in the tech industry might be obsolescence. Companies know that to fight steep competition, attract new customers and maintain existing ones requires both excellence and continued innovation and improvement. Static products simply do not cut it. Investors, too, prioritize product potential and diversified, steady revenue streams. While data monetization can present attractive new opportunities for revenue, tech companies must also balance ethical data management practices. As tech companies continue to focus on revenue generating activities, they should not overlook opportunities for R&D tax credits and domestic manufacturing credits to help offset their investments.



# Digital Transformation During Times of Crisis

The COVID-19 outbreak has had a devastating effect and altered the lives of billions of people around the globe. For many organizations, the impact on their employees, suppliers and customers makes it an existential business threat as well. Don't expect a "return to normal" either, because the tectonic shifts the novel coronavirus crisis has created will become part of the new post-pandemic reality, and businesses must adapt or face the consequences.

The economy is now mired in a downturn, which may outlast the current wave of the pandemic. The knee-jerk reaction to an economic downturn tends to be to slash costs across the board—and some businesses may consider making digital transformation a sacrificial lamb. But halting digital transformation is cutting off the nose to spite the face. If the coronavirus crisis has shown us anything, it is that businesses need to be able to operate in a digital world now more than ever. In fact, the response to the pandemic has expedited the digitization and servitization of the economy that was already in progress.

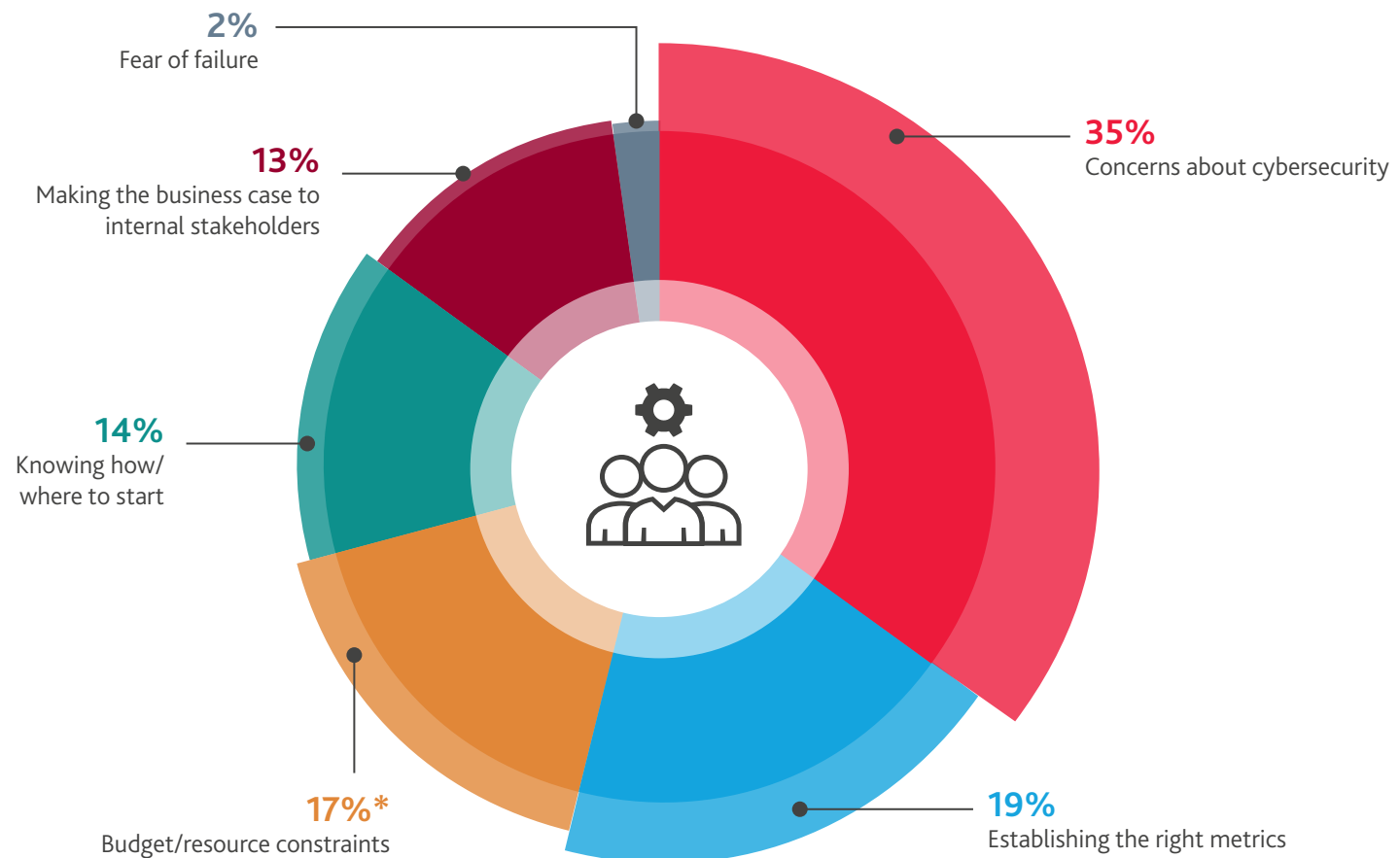
For tech companies, persevering through the crisis and beyond demands much more than just optimizing costs; it requires new levels of operational efficiency, the resilience to continue operations and the agility to make necessary changes quickly. Many in the tech industry already have this muscle in their organization, and just need to activate it. Having a digital strategy already in place gives an organization a distinct advantage in responding to economic volatility and market disruption. And for those that are still developing or planning to implement their digital strategy, they must forge ahead or risk obsolescence.

This crisis can serve as the catalyst for accelerating digital transformation and adoption across an organization. The innovations that are made out of necessity could become permanent pillars of the business that help it to thrive well beyond the pandemic.



## Top Challenges to Getting Started

Even though COVID-19 has caused cash, supply and work flow issues, as well as added unanticipated expenses, digital spending will be an even more important area to focus resources on going forward. Leaders of digital transformation need to make the business case for how spending on digital initiatives can help preserve revenue and capital to make the entire business more resilient. Tech executives point to a range of issues that serve as roadblocks to getting digital initiatives from idea to execution. More than one third of technology leaders said that insufficient resources or lack of agility was their company's primary weakness overall.



\*In the current environment, budget/resource constraints are likely to pose an even greater challenge than is reflected here.



## Lessons Learned from Failure

Research and development is a part of the process, and so is failure. With pain comes progress. Once an initiative is launched, tech companies know that investments in IT infrastructure, training and change management are critical to success and take steps to prioritize each of those factors.

### TOP CITED REASONS FOR FAILURE

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# Benchmarking Your Digital Transformation Efforts

How do you stack up against your technology industry peers? While every technology business is different, benchmarking against those in your revenue range can help you determine the priority areas of focus for your digital transformation efforts.

## HOW TO USE THIS BENCHMARKING DATA



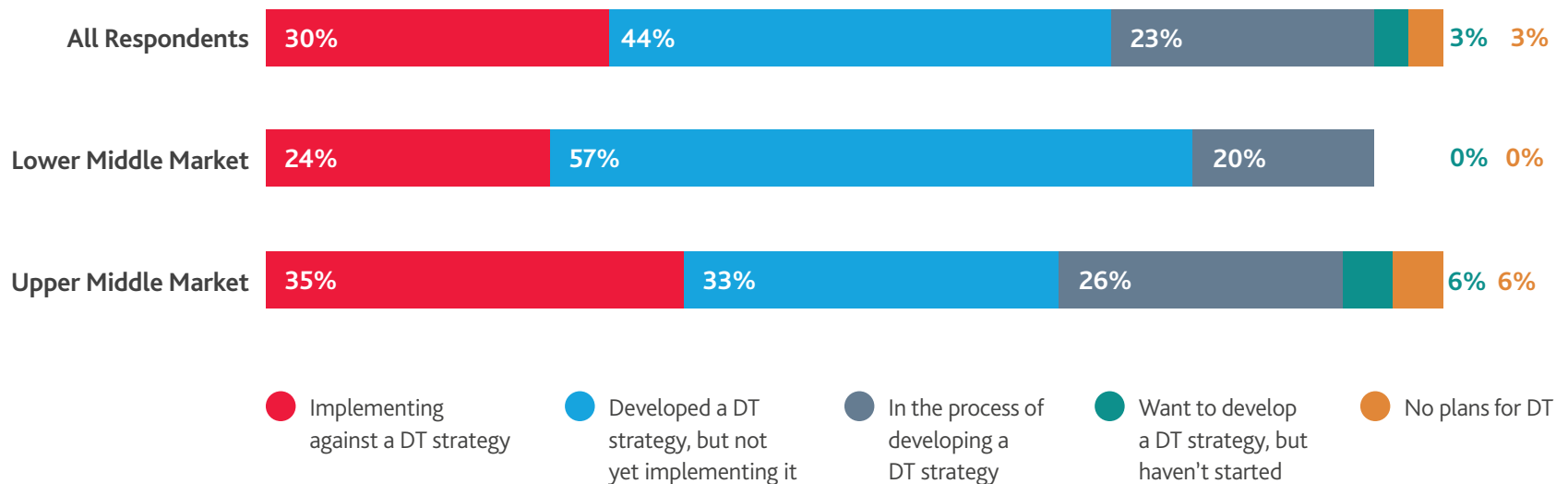
For the purposes of this section, organizations are categorized in two groups, according to their annual revenues:

- ▶ **Lower Middle Market:** \$250M-\$749M
- ▶ **Upper Middle Market:** \$750M-\$3B

# WHAT IS THE CURRENT STATUS OF YOUR DIGITAL TRANSFORMATION STRATEGY?

## Benchmarking / Strategy Status

### STRATEGY STATUS





# WHICH DIGITAL ENABLERS ARE YOU ADOPTING?

## Benchmarking / Deployment of Advanced Technologies

Emerging Technologies	All Industry Respondents		All Tech Respondents	
	Currently Deploying	Considering Deploying	Currently Deploying	Considering Deploying
Cloud Computing	66%	27%	73%	24%
	93%		97%	
Advanced Analytics	57%	34%	52%	40%
	91%		92%	
Artificial Intelligence	45%	42%	57%	35%
	87%		92%	
Internet of Things	53%	33%	52%	38%
	86%		90%	
Blockchain/DLT	33%	42%	35%	52%
	75%		87%	
Extended Reality	33%	36%	35%	35%
	69%		70%	
3D Printing	29%	26%	31%	23%
	55%		54%	
Robotic Process Automation	33%	39%	28%	41%
	72%		69%	

### Is Tech Suffering from Shoemaker's Children Syndrome?

You know the old proverb about the shoemaker? He was so busy making shoes for his customers that his wife and kids went shoeless. While the tech industry is no doubt driving transformation and resilience in every industry, there may be a few areas to focus on in taking care of their own business.

Deployment of advanced and emerging technologies is one. While tech companies currently have a high adoption or planned adoption rate for many new technologies, a surprising number of companies are behind or overlooking the potential of some basics.

More than a quarter of tech companies said they were not currently deploying cloud computing which could be a significant barrier to customer service, communication, collaboration, transparency and security. Almost half were not yet using data analytics and less than a third had deployed robotic process automation.

With tech companies responding to new needs created by the pandemic and investing in infrastructure for optimization and modernization of their businesses, many of these gaps are likely to be closed, but it's a good reminder that for tech companies to reach their full potential externally, they need to transform internally, too.



# HOW IS YOUR ORGANIZATION SHARING INFORMATION?

## Benchmarking / Data and Information Sharing

	All Respondents	Lower Middle Market	Upper Middle Market
Data in silos	7%	4%	9%
Data shared upstream and downstream within the organization	41%	48%	35%
Data consolidated in a central location	41%	35%	46%
Data consolidated and shared with some vendors	8%	9%	7%
Transparency across the business ecosystem	3%	4%	2%

# HOW ARE YOU RESPONDING TO NEW DATA PRIVACY REGULATIONS AND NORMS?

## Benchmarking / Data Privacy & Compliance

	All Respondents		Lower Middle Market		Upper Middle Market	
	Currently	Next 12 Months	Currently	Next 12 Months	Currently	Next 12 Months
Providing Training for Employees	57%	40%	67%	33%	48%	46%
	97%		99%		94%	
Automating Compliance Processes	54%	37%	52%	43%	56%	31%
	91%		95%		87%	
Performing a Readiness Assessment	53%	34%	61%	33%	46%	35%
	87%		94%		81%	
Performing a Data Mapping Exercise	52%	43%	61%	33%	44%	52%
	95%		94%		96%	
Revising Privacy Policies and Processes	52%	36%	54%	37%	50%	35%
	98%		91%		85%	
Updating Privacy Disclosures	50%	26%	54%	26%	46%	26%
	76%		90%		72%	
Reviewing Third-Party Agreements	44%	39%	50%	35%	39%	43%
	83%		85%		82%	



# MORE REGULATION, PLEASE?

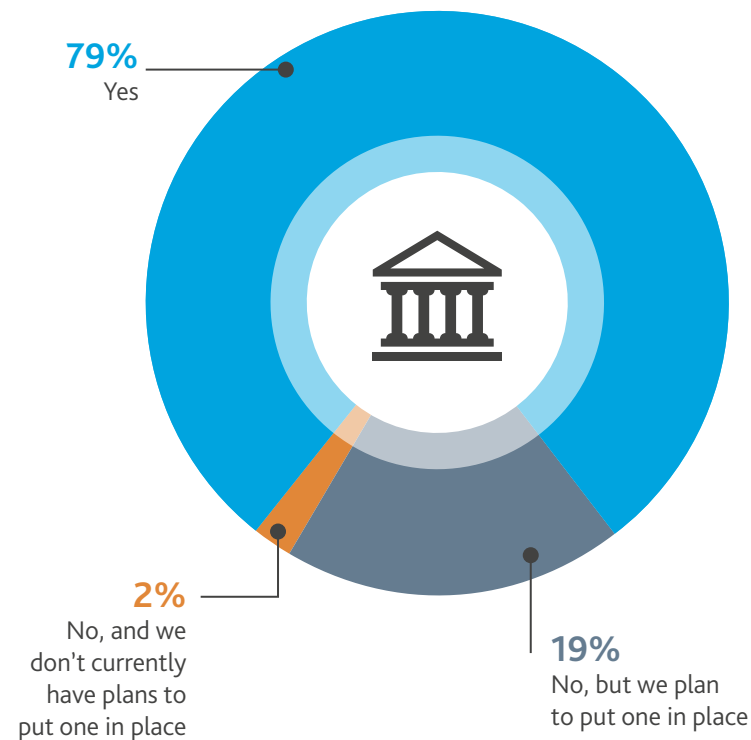
Tech companies are ahead of peers when it comes to applying an ethical approach to data and taking action to enhance privacy. But it's not solely driven by altruism, regulators are forcing their hand and making technology companies an example for enforcement actions.

Every state now has a data privacy or notification law on the books, and tech companies are wary of increased compliance burdens as most states follow California's lead and take up laws like the CCPA.

That's one reason why 50% of technology CFOs said they think the industry needs to be more regulated in our [2020 BDO Technology Outlook Survey](#). Indeed, many tech companies are behind lobbying efforts to get a national data privacy law on the books, and the issue is likely to come up in context of the 2020 election as both parties seem to agree that more needs to be done.

Looking ahead, middle market technology companies should watch closely for potential laws that could be designed by and for big tech. The trickle effects on the middle market and emerging growth companies could impact growth or add barriers to entry. In the meantime, taking proactive steps to address current and expected rules will serve companies of all sizes well.

## DO YOU HAVE A DATA ETHICS POLICY IN PLACE?



**DOES YOUR ORGANIZATION USE THE FOLLOWING SECURITY MEASURES?****Benchmarking / Getting Serious About Security**

	All Respondents	Lower Middle Market	Upper Middle Market
Security Analytics	82%	85%	80%
Data Encryption	78%	78%	78%
Continuous Threat Monitoring	77%	76%	78%
Managed Security Services	72%	78%	67%
Industrial Controls Systems Security	60%	57%	63%

**HOW ARE YOU PREPARING YOUR EMPLOYEES FOR DIGITAL TRANSFORMATION IN THE WORKPLACE?****Benchmarking / Digital Adoption & Enablement**

	All Respondents	Lower Middle Market	Upper Middle Market
Implementing training to upskill current employees	55%	57%	54%
Developing a formal change management strategy	51%	43%	57%
Establishing a Digital Transformation office	49%	50%	48%
Hiring new talent	40%	43%	37%
Working with an external advisory firm	36%	24%	46%
Leveraging third-party outsourcing solutions	28%	26%	30%
No plans	1%	0%	2%



## IS YOUR INVESTMENT IN DIGITAL PAYING OFF IN FULL?

## Benchmarking / Digital ROI

RATE OF SUCCESS	All Respondents	Lower Middle Market	Upper Middle Market
Business outcomes surpassed expectations	28%	28%	28%
Achieved expected outcomes	61%	59%	63%
Failure	11%	13%	9%

12-MONTH REVENUE GROWTH FROM DIGITAL INITIATIVES	All Respondents	Lower Middle Market	Upper Middle Market
Increased by 10% or more	16%	17%	15%
Increased by 1-9%	51%	37%	62%
No impact	32%	43%	23%
Decreased	1%	2%	0%

\*Excludes respondents that did not make digital investments in the last 12 months

12-MONTH PROFITABILITY IMPROVEMENT FROM DIGITAL INITIATIVES	All Respondents	Lower Middle Market	Upper Middle Market
Increased by 10% or more	22%	13%	30%
Increased by 1-9%	58%	65%	51%
No impact	19%	20%	19%
Decreased	1%	2%	0%

\*Excludes respondents that did not make digital investments in the last 12 months



# Conclusion

Innovation is second nature in the tech industry, and there's never been a time when it's been more essential. In 2020 and beyond, tech companies must take an intentional, risk-based approach to transformation. As the COVID-19 response has demonstrated, businesses need to align their current strengths with how they address external threats and emerging opportunities. Data analytics must be coupled with ethics, security must coincide with responsibility, customer experience must consider privacy and new products must be built with consistency and consideration of ripple effects and impact.

As tech companies transform in order to help their customers and other industries transform, long-term success will be built on responsible reinvention.

Is your digital transformation roadmap designed for long-term success and sustainability?

Start or capture the full power of your digital journey.

**LEARN MORE ►**





## About BDO's Technology Practice

BDO works with a wide variety of technology clients, ranging from multinational Fortune 500 corporations to more entrepreneurial businesses, on myriad accounting, tax, financial and transformative issues.

## About BDO Digital

A subsidiary of BDO USA, BDO Digital, LLC, provides a holistic portfolio of technology and transformation services and solutions, tailored by industry and designed for the middle market. The collaborative, cross-disciplinary team is comprised of more than 400 professionals, including digital strategists, systems integrators, data scientists, software developers, change management professionals and industry-specific advisors, who work together to solve clients' immediate digital needs and unearth new opportunities to drive competitive advantage. Learn more at [bdo.com/digital](https://bdo.com/digital).

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