



# Transforming the transformers

Technology company insiders reveal how they are accelerating their own digital transformations, even while architecting the world of tomorrow.



COVID-19 accelerated several business trends like cloud adoption, automation, hybrid workforces, AI adoption, and virtual work environments. Technology companies provided the products and services that powered this acceleration and allowed the wheels of industry to keep turning during the pandemic.

But how are these creators managing their own continuous technology journey to outpace their competitors and meet changing stakeholder demands? A recent KPMG global survey explored these questions:

- What technologies are global tech companies leveraging to propel their own businesses forward, and why?
- What challenges are they experiencing?
- How are they measuring success?

Looking at the sheer variety of technologies that tech companies are employing to transform their business, it is apparent that there is no one clear path to market success. Many technologies were ranked so closely in the survey that they were statistically tied. An approach that utilizes multiple technologies to connect the front, middle, and back office is the key to creating a resilient organization that can adapt and thrive under the most challenging of circumstances. Addressing the operating model with a fragmented, disconnected technology approach is no longer an option.

## Leading technologies are AI, IoT, RPA

AI allows tech companies to work faster and smarter in analyzing everything from changing customer behaviors to optimizing supply chains. IoT devices and sensors fill servers with new, often unstructured data on customers and operations for AI to analyze. As business models and financial forecasts change, RPA allows companies an entry point into automation that frees employees to focus on more strategic activities while increasing efficiency and productivity.

The pandemic has predictably raised the (re)adoption and uptake of certain technologies that cater to hybrid workforces and less in-person customer interactions. Certainly video collaboration, eCommerce, cloud, 5G, and digital payments are in this category. Acceptance of video collaboration and digital payment technologies, especially, have been accelerated by the pandemic.

## The top transformative technologies

Technology industry insiders revealed the top technologies they will be using to transform their companies over the next three years. Ties are listed alphabetically.

Rank	Technology
1	Artificial intelligence (AI)
2 tie	Internet of things (IoT)
2 tie	Robotic process automation (RPA, e.g., software bots)
3 tie	Cloud
3 tie	Drone technology
3 tie	eCommerce platforms
3 tie	Video/virtual collaboration technologies
4 tie	5G
4 tie	Blockchain
4 tie	Digital payment platforms
4 tie	Quantum computing
4 tie	Robotics

Source: KPMG Technology Industry Survey 2021, n=802  
Up to three responses allowed. Partial list shown.

## Unleashing the potential of new technologies

In a similar [2019 KPMG survey](#), industry leaders said they were leveraging new technologies primarily for their impact on the bottom line (improved business efficiencies, cost reductions, and increased profitability). This implied that executives were uncertain about how new technologies could be used to grow market share and the top line.

The pendulum has now swung in the opposite direction. The pandemic has pushed businesses to evolve or perish, quickly adopt new technologies, and reinvent how they work. It appears that during this rapid reinvention, technology companies are now figuring out how to use new technologies to fuel growth and the top line.

When asked how these technologies will transform their company, leaders now rank increased market share and enhanced customer loyalty at the top.

Following these, leaders plan to utilize new tech to create longer-term competitive advantages such as generating new insights, greater data security, and energy efficiency.

The former top benefits of cost reduction and improved efficiencies now rank near the bottom, suggesting that many tech companies have already implemented solutions that pick this low-hanging fruit.

## The data imperative

Despite the turnaround to use new technologies to grow the top line, tremendous opportunity still exists to utilize the treasure trove of data being created by new digital technologies implemented during the COVID-19 pandemic. A separate [KPMG study](#) found that only 32 percent of tech companies fully utilize their customer data. And 57 percent do not have defined enterprise-level data strategy.

Solving this data underutilization is mission critical for tech companies. Many advances in service delivery and personalization depend on the effective use of both structured and unstructured data by new technologies. And all must be underpinned by a comprehensive, enterprise-wide data strategy.

Becoming data-first creates a competitive advantage and leveraging data across all value chain activities correlates to the potential for out-sized financial returns. The study revealed that tech companies expect a 4 percent or greater increase in performance effectiveness in customer service, operations, cyber security, talent management, and other activities when they increase investment in data by 25 percent.

To achieve this, data strategy and investment must be prioritized over, or at least on par with, new technology implementations.

### Rankings for how different technologies will help tech companies transform

	Artificial intelligence	Internet of things (IoT)	Robotic process automation (RPA, e.g. software bots)	Cloud	Drone technologies	eCommerce Platforms	Video/virtual collaboration technologies	5G	Blockchain	Digital payment platforms	Quantum computing	Robotics
Increased market share	2	1	2	1	2	3	1	1	1	3		1
Enhanced customer loyalty			1			2	2	2		1	2	2
New business insights	1			3	1		3		3	3	1	
Greater security/data integrity				2		1		3			1	
Will make our company more sustainable/energy efficient				2	3				2			3
Increased revenue from new or differentiated products/service	3	3							3	2		
Cost reductions				2				2			3	
Accelerated time to market						3		2				
Improved process efficiencies		2	3									

Source: KPMG Technology Industry Survey 2021, n=802. Multiple responses allowed. Partial list shown.

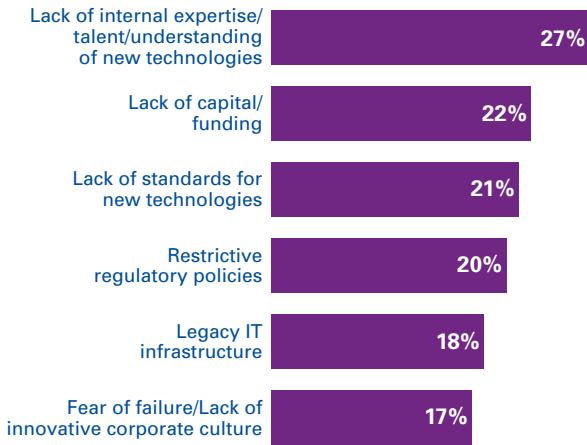
# Lack of talent is the main inhibitor to digitization

Even before the pandemic caused demand for tech products to skyrocket, the tech industry was facing a shortage of skilled workers. The [Harvey Nash/KPMG CIO Survey](#) further detailed that the top skills shortages at technology companies that the pandemic has brought to light are in the areas of cyber security, DevOps, and modern architecture.

This lack of skilled talent was named by the KPMG tech industry survey respondents as the top factor limiting digital transformation efforts at technology companies.

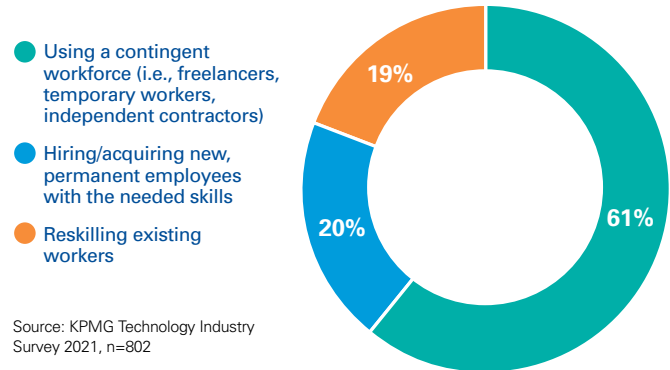
How are technology companies addressing this skills gap? The issue will not go away overnight, yet the need is urgent to evolve the business model. The answer, at least in the near term, is to tap into the contingent workforce to rapidly obtain the needed expertise.

## Limiters of digital transformation at technology companies



Source: KPMG Technology Industry Survey 2021, n=802  
Multiple responses allowed. Partial list shown.

## Primary method tech companies are using to modify their workforces for the adoption of new technologies

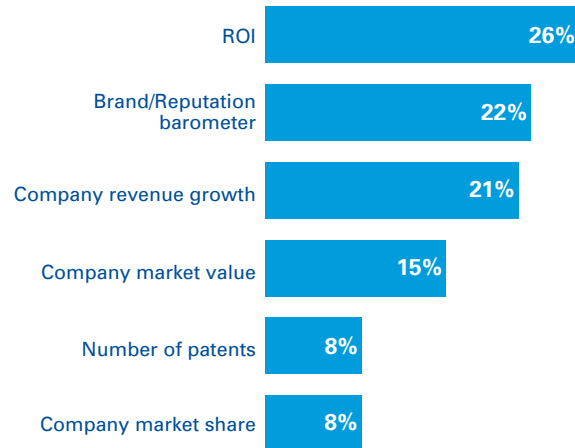


Source: KPMG Technology Industry Survey 2021, n=802

# Measuring digital acceleration success

As difficult as it may be to plan and implement digitization across numerous systems and functions, companies still seek to measure their results. Most of the methods are understandably quantitative (return on investment, revenue growth, etc.). Yet interestingly, the second most popular measurement in the survey was brand/reputation, which is a reflection of both market perception and the actual customer experience. In the tech sector, perhaps more than in any other, the perception of being innovative and cutting-edge can play an outsized role in company success.

## Top metric tech companies use to measure the value of digital transformation



Source: KPMG Technology Industry Survey 2021, n=802  
Multiple responses allowed. Partial list shown.

## Actions to take now



### New technologies

Continually look at what new technologies are becoming available that could help serve customers better, navigate disruption, or connect your business functions more seamlessly. Technology investments should be aligned with the wider strategic goal of customer centricity—which means focusing on a connected enterprise.



### Customer

Put customers first—at the heart of any technology and data strategy. Become insight driven—know the customer at a deep and profound level. And practice customer foresight—to anticipate customer needs and be able to meet them wherever they are.



### Data

The rapid adoption of digital technologies during the COVID-19 pandemic has created vast stores of underutilized data. Accelerate data access, management, and analysis to develop new customer insights, develop go-to-market strategies, and unlock new revenue streams. [Read more.](#)



### Ways of working

Focus on the workforce capabilities you need in a future connected enterprise, and plan how to access these via permanent, gig economy, or other partnerships. Invest in digital upskilling. Rethink the balance between physical and virtual assets, human interaction, and automation.

## How KPMG can help

COVID-19 has been a catalyst for digital transformation. It has compelled organizations, regardless of their operating model, to immediately leverage new technologies and ways of working. Organizations now need to imagine their future, and position themselves for the new reality.

KPMG can help harness technology to build a connected enterprise. That's an enterprise where the front, middle, and back offices are aligned. An enterprise that's more connected with customers, employees, and business partners. An enterprise that enables quick responses to market signals and pivots to seize opportunities as they arise.

KPMG Connected Enterprise is the KPMG digital transformation approach. It's industry-specific and customer-centric. It focuses every critical process, function, and relationship of a business on meeting customer expectations, creating business value, and driving sustainable growth in a digital world.

For more information, please visit: [KPMG Connected Enterprise.](#)

## About the research

The 2021 KPMG Technology Industry Survey, now in its ninth year, included responses from more than 800 global leaders in the technology industry across all major subsectors including technology services, internet/eCommerce, hardware/electronics, software/SaaS, and semiconductors. Twelve countries were included in the online survey, and about two-thirds (65 percent) of the respondents were C-level executives. The data collection for this publication was completed in the third quarter of 2021.

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