

5 Tech Trends to Watch in 2021

How to Build
Operational
Resilience to
Strengthen Business
Continuity

CTO Tips for Navigating Business Continuity Through Unpredictability



The Role of IT in Business Continuity

Building a More Resilient Organization



Technology Insights for Business Continuity

hen it comes to IT, 2020 showed us that technology needs can change dramatically in the blink of an eye. Shifting workforce demands can put business-critical systems under sudden pressure. It's clear that organizations need systems they can trust to scale and evolve, no matter how the world, workforce, or workload changes.

As we start to move toward recovery, IT has the opportunity to take a step back and reevaluate practices established out of necessity. As IT leaders consider what worked and what didn't, only the strongest tools and processes will help ensure business continuity the next time IT is asked to suddenly pivot. This issue of *CIO Perspectives* explores how technology and IT leaders can keep their organizations running smoothly now and into the future.



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How Resilience Became a
Powerful Enabler for Business
Continuity—and Ingenuity

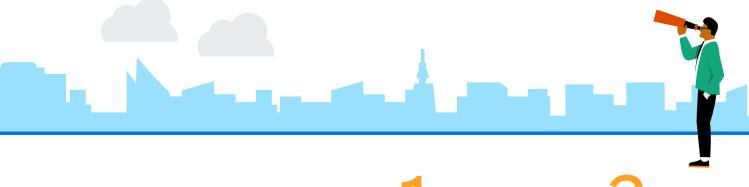


hen we look back on 2020, we'll likely regard it as the year that digital transformation reached escape velocity. Technology took center stage as businesses scrambled to serve customers, ensure business continuity, and support employees during the throws of a global pandemic. As a result, technology evaluations and implementations that previously took months or years to complete were compressed down to weeks, if not days, in many cases. This pandemic taught us just how important technology is to businesses today, and for their future success.

As part of this process we've also realized that planning and preparedness pays off. Companies are now investing in

technology not only for digital transformation but for crisis preparedness, because if there's one thing we've learned it's that a global crisis can happen at any time, and with little warning.

As the world focuses on recovery in 2021, the investments businesses made as a result of the pandemic have helped lay the groundwork for a year of rapid technology adoption in enterprises. Companies are looking to upgrade their digital core technologies to give them the agility they need to move forward. I expect machine learning (ML), next-generation analytics, and employee experience technology to make huge leaps this year, in the following ways:



The investments businesses made as a result of the pandemic have helped lay the groundwork for a year of rapid technology adoption.



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#1

The rise of explainable AI/ML.

Because most AI/ML models are somewhat of a black box, users and developers don't have visibility into why the models make the decisions they do. Machine learning in the enterprise is being designed and developed to augment individuals in their roles, such as recommending the most qualified candidates for a role, flagging an anomalous or high-risk financial transaction, or suggesting the next step in your career path. However, wide-scale adoption of these solutions will only happen after we build trust in the underlying technology, which can only happen if the drivers for a given prediction are explained to the end user.

For example, in the context of machine learning in recruiting—understanding why a given candidate is recommended for a particular role is important to allow the hiring manager to make an informed decision and also to expose the risk of bias in hiring practices. Similarly, in the finance world, without describing why a particular transaction was categorized as potentially anomalous, we may actually cause the financial analyst to spend more time auditing transactions rather than less.

This year, I expect developers and business users will demand more insight into the algorithms and how they are applied. More visibility into this process will ensure that people understand the factors on which a given model is basing its recommendation.

#2

Agility enabled by automation.

In 2021, IT leaders will increasingly seek automation to reduce friction and increase productivity with processes and tasks that flow between enterprise systems.

Pressured to do more with lessand faster-we'll see automation technologies experience greater traction as CIOs work to quickly realign their enterprise systems to new processes, ways of working, and revenue opportunities; ensure the ongoing health and safety of their workforce; fill critical talent gaps; and ultimately extend the capacity of those workforces. In fact, Workday's recent organizational agility study shows that nearly two-thirds (64%) of companies report progress deploying AI, ML, and automation technologies designed to streamline workflows and help increase capacity of the existing workforce.

The focus for IT is shifting from how to customize and rewire a single application, to orchestrating a holistic and efficient solution experience.



Two-thirds (64%) of companies report progress deploying AI, ML, and automation technologies designed to streamline workflows and help increase capacity of the existing workforce.



User experience reinvented.

The seamless and personalized consumer experiences we enjoy in our personal lives are increasingly coming to the workplace.

The confluence of advanced front-end user interface technology, open systems with connecting workflows, intelligent multimedia content, and embedded ML will bring about a deeper level of integration, context-guided experiences, and personalization across systems and devices. Equally important is a burgeoning focus on design thinking for workplace experiences to ensure that employee interactions are, and remain, frictionless and intuitive. With so many employees continuing to work remotely, businesses are accelerating investments in making their enterprise applications as compelling, collaborative, personalized, and efficient as possible.

#4

Next-gen embedded analytics.

When I speak with our customers, nearly every conversation revolves around data—how they can make the most of their data to drive business decisions and agility. With so many clouds, applications, and services in the enterprise ecosystem, critical data is sitting in silos across the organization. For example, if you wanted to see how your Atlanta sales office is performing, you'd likely need data from your CRM, finance, marketing, and HR systems to get a full picture—not an easy task.

The next generation of applications will give us greater ability to aggregate analytics and insights from across systems. And, these next-gen tools will then surface those insights to the right people at the right time to help them solve business needs—no SQL required. With recent advancements to connectors and metadata connectors, it's getting increasingly easier to bring disparate data sets together and put the data to work, which bodes well for making decisions faster, and with more confidence.



Collaborative Al.

In the early days of AI and ML development, companies focused on building proprietary ML algorithms for a wide range of functions—optical character recognition, natural language processing, and speech-to-text, to name a few. As the building blocks of AI and ML become commoditized, we're starting to see the move toward higher-value services that leverage those underlying technologies.

This evolution mirrors that of the major public cloud providers as they moved from infrastructure to platform to applications. Examples of this higher value include enabling companies to experiment more with AI and ML innovations to improve products, while building trust in their models and predictions. Businesses will be able to leverage best-in-class algorithms to quickly build ensemble applications and focus their ML on what's truly unique to their business—without requiring a full data science team.

While there's no telling what's ahead of us in 2021, businesses are focused on preparing for the next normal by devising new ways to empower their greatest asset—their people—with technology.









OVID-19 has put companies to the test. Across industries, businesses are going through trial and error in adjusting to a new marketplace reality.

When navigating unprecedented times, organizations must focus on how to respond, recover, and eventually thrive. In this article, we highlight advice from our partners on how to ensure business continuity through operational resiliency.

Understanding Operational Resilience

In its report "The Art of Adapting to a Changing Environment" KPMG defines "operational resiliency" as an organization's ability to adapt to rapidly changing environments. "This includes the resilience of systems, processes, and people,

and more generally the organization's ability to continue to operate during disruptive events."

In the post-COVID norm, an effective resiliency plan will look very different than it does today.

Operational resiliency has been a long-standing focus in areas that dealt with risk, such as cybersecurity or outsourcing. But the scope of discipline has evolved, becoming "a new end-to-end discipline that requires all parts of the organization to work together," says KPMG.







The challenges brought on by COVID-19 add another nuance to strengthening operational resiliency. From PwC: "In the post-COVID norm, an effective resiliency plan will look very different than it does today. COVID-19 has expanded the scope of operational resiliency beyond preventing threats to being prepared to operate during periods of massive social disruption."

Here's how companies can strengthen their operational resiliency:



Consider these questions.







Are new conflicts emerging?







Are critical conversations not happening?

Assess adaptation to new ways of working.

Oftentimes, unexpected challenges, such as those brought on by COVID-19, place heightened scrutiny on how well your organization operates. "Now is a good time to monitor emerging performance problems and identify new ways of working," says Mercer in its article "Leading During a Pandemic: Four Questions Leaders Need to Consider."

To ensure business continuity, organizations should consider whether "remote workers have the tools, technology, and training they need," especially since many companies have required some or all of their employees to work from home in response to COVID-19. Also, the strength of an organization's operational efficiency includes the effectiveness of decision-making and cross-functional coordination in time of crisis.

"If COVID-19 has changed where (e.g., home) and how (e.g., virtually) your employees are working, it is important to understand the extent to which these changes are disrupting performance," Mercer says.

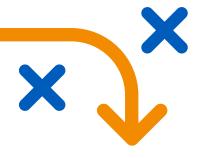
Organizations should ask themselves these questions: Are teams working well together? Are new conflicts emerging? Are critical conversations not happening? "If so, virtual distance may be slowing your employees down," Mercer advises. "Identifying coordination challenges quickly and taking corrective steps can help your organization stay on track."

The report's authors also encourage companies to get timely feedback from their workforce on the operational effectiveness of the organization.

"Employees and frontline managers often have the clearest insights about the tools, technology, policies, and procedures that aren't helpful," Mercer says. "Now is a good time to streamline processes and remove hassles. Doing so will increase efficiency and probably boost employee engagement as well."

The article also highlights other factors, such as organizational agility, that leaders should consider when assessing the performance of their organizations during times like these.





Prioritize process changes for workforce management.

In the midst of COVID-19, companies are having to realign their HR protocols and policies to reflect new regulations and the changing needs of the business, such as expediting the hiring of essential workers or adding hazard pay.

"We know that all of these questions and more are important because how we respond today is going to influence business after recovery," says Danielle White, vice president, Global Customer Engagement at Collaborative Solutions.

That's why Collaborative Solutions put together an *Ask the Experts* webinar series to help organizations reconfigure their processes impacted by COVID-19. The webinars so far have addressed tracking, absence, and payroll; core HCM and recruiting; and benefits and benefits reporting. Upcoming webinars in the series will address other processes that are changing in light of COVID-19, such as finance operations and virtual deployment.

In response to the Families First
Coronavirus Response Act,
OneSource Virtual created a YouTube
presentation that gives an overview
of the new legislation, explains how
to reconfigure system processes in
Workday that account for employees
missing work due to COVID-19, and
discusses the potential impact of
the legislation on other processes
and policies.

Workforce planning has also been greatly impacted by COVID-19, as companies are having to suddenly reduce their workforce while others are experiencing a surge in demand. As a result, businesses must shift how they recruit and hire talent in the current landscape. A new global employer-to-employer initiative powered by Accenture's platform People + Work Connect enables companies to rapidly share the experience and skills of their laid-off or furloughed workforces with other companies on the platform that are seeking workers. The resource is available to use at no cost.

Strengthen supply chain resilience.

The pandemic is disrupting supply chains on a global scale. When adjusting their operations to cope with the impact, companies must also account for building up long-term resilience.

"The COVID-19 pandemic is not just a short-term crisis," Accenture says. "It has long-lasting implications for how people work and how supply chains function."

In the report "Building Supply Chain Resilience: What to Do Now and Next During COVID-19" Accenture outlines a continuous cycle framework of "risk mobilizing, sensing, analysis, and configuration" that will help organizations optimize results and navigate a rapidly changing environment.

How to future-proof your supply chain.



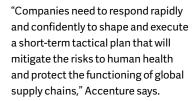
Improve supply chain visibility



Model new risks and costs



Focus on resilience



A PwC whitepaper also examined the impact of COVID-19 on the global supply chain. For companies to future-proof their supply chain, PwC advises to improve supply chain visibility, model new risks and costs, and focus on resilience.

"Understanding how global manufacturers are managing through disruptions to their supply chains will help all businesses structure their own responses," says PwC.







B usiness and IT alignment has probably never been more important than it is right now. Due to disruption from the pandemic, IT teams are having to figure out how to find the right balance between business continuity and digital innovation.

The COVID-19 crisis is also forcing chief technology officers (CTOs) and their teams to lead through the disruption by rapidly adapting processes and protocols for effective remote work scenarios, enabling business continuity through unplanned demand, and mitigating new security risks and threats.

As parts of the world are now recovering from the crisis, CTOs are solidifying their lessons learned while starting to revitalize digital innovation efforts. Ivan Ng, CTO at City Developments Limited (CDL), a global real estate firm headquartered in Singapore, shares his best practices for successfully navigating this next phase in this Q&A.

Read on for Ivan's advice on ensuring continuity as well as helping the company become more agile and responsive—which will only pay dividends as the focus turns more toward innovation in the future.



How can companies quickly adapt their business to keep up with evolving needs, and how can technology help?



Understand the early signs of changing needs.



Manage an agile ecosystem to deliver those changes.



Adjust business models to commercialize and capture value.

Due to the pandemic, every business has been experiencing rapid and massive changes, so adaptability is an almost existential capability for all companies.

The ability to adapt can be attributed to three areas: understanding the early signs of changing needs, managing an agile ecosystem to deliver those changes, and adjusting business models to rapidly commercialize and capture value. This is where technology can be a strategic enabler. We live in a world where data is universally

prevalent, but making sense of the data requires sharp business acumen and deep technology expertise to extract insights on changing needs for business products or services.

Technology also enables supply chains to seamlessly connect across organizations to deliver what the customer needs. Lastly, technology provides a whole arsenal of tools to calibrate business models through analytics, as well as facilitate customer experience journeys.

Why is there a need for IT to deliver remote services, and what does IT need to consider in supporting remote work?

Traditionally, IT was about providing services on-site. Now, IT is so interwoven into key business processes that the requirements on IT should be the same as for the rest of the business. For many companies, the expectation for IT services is to be available anytime, anywhere. The pandemic crisis has clearly demonstrated why on-site—only IT services are insufficient for the modern enterprise.

To effectively support remote work, CTOs need to look beyond the technology and recognize that remote work is truly different. Amidst the crisis, many organizations have discovered that even with prior business continuity planning and new digital tools, nothing could have prepared us for such significant disruption. IT can better prepare by investing in enterprise solutions that center on technology, data, security, and cloud computing.

"The pandemic crisis has clearly demonstrated why on-site-only IT services are insufficient for the modern enterprise."

Ivan Ng, CTO, City Developments Limited



How can IT ensure anytime, anywhere access to data to support remote business functions?

To deliver anytime, anywhere access is non-trivial. Modern IT architectures are inherently complex and made up of interlinked IT services that span from applications to infrastructure, with a large number of components. This means that one weak link can potentially disrupt a critical IT service.

While other approaches exist, my recommendation is for IT to adopt a cloud-first strategy. In my experience, adopting a cloud-first architecture has greatly reduced the complexity around infrastructure and allows us to quickly scale up the capacity to adapt to business needs.

Beyond leveraging the cloud, it's also important to fully embrace being digital across all business functions. Over the last few years, we embarked on a journey to digitize most of our documents and move our core processes online.

It's also important to fully embrace being digital across all business functions.

We have also focused on building the capability for staff to collaborate on documents virtually, enabling our employees to work remotely and complete training on mobile devices and laptops.

How can IT evolve its operating models to ensure business continuity during a crisis?

The COVID-19 pandemic clearly shows how disruptive a crisis can be on people, businesses, and economies. As IT leaders, we need to focus on how we can best evolve operations to enable our businesses to serve our customers regardless of disruption. There are three things that IT should consider doing:



Create workforce resilience.

Evaluate collaborative technologies to allow work to be executed across your employee workforce, and supplement it with digital capabilities such as robotic process automation (RPA) and IT remote services.



Establish a command center.

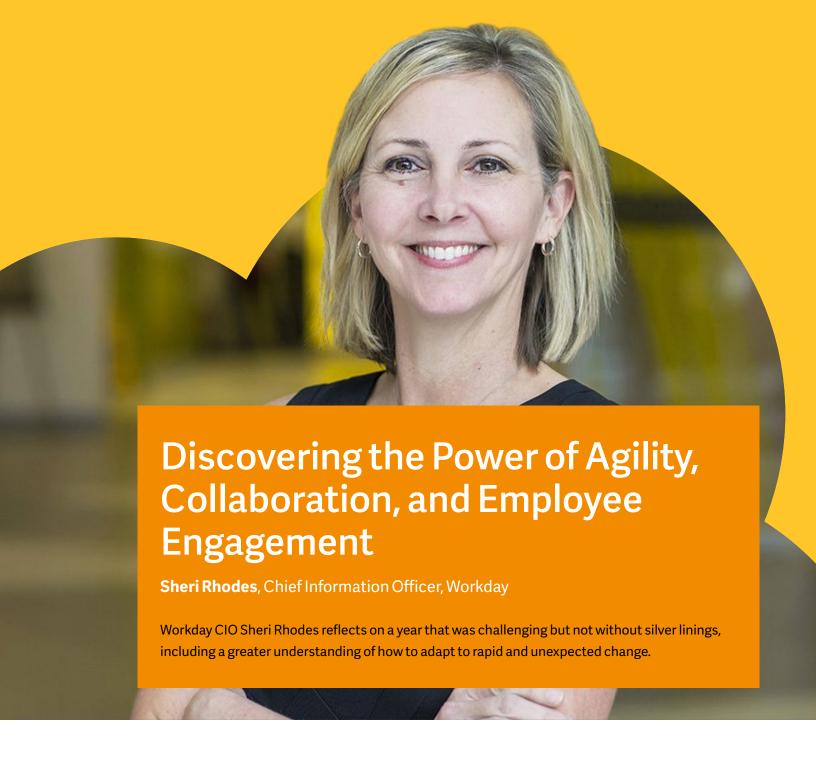
Prioritize critical processes and develop a command center to coordinate work while ensuring compliance, insights, and engagement through a centralized model.



Establish an agile ecosystem.

Use a combination of service models and leverage your ecosystem of in-house, outsourced, and cloud partners to deliver key services to customers while minimizing risk.



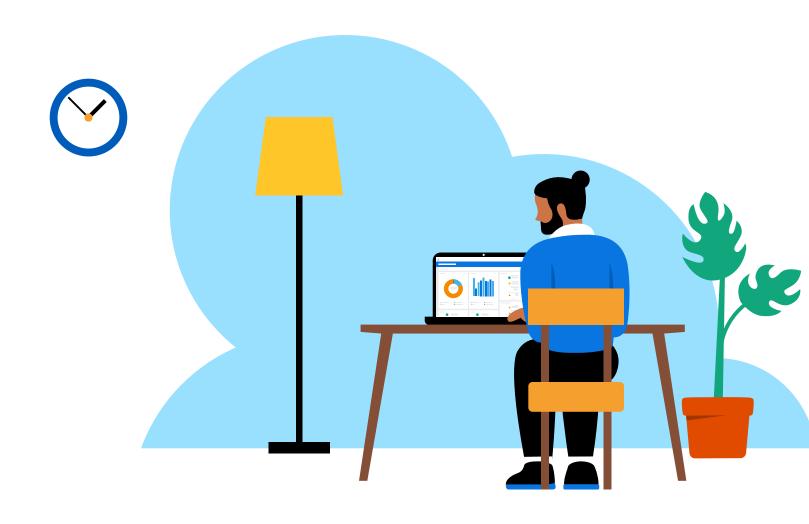


he year 2020 presented leaders with many surprises lots of challenges, and opportunities—forcing them to think differently and evolve their roles and organizations. Whether it was supporting employees through the shift to remote work due to COVID-19, ensuring seamless business continuity, communicating authentically, maintaining employee engagement, or operating with agility, it was a hard year, but not without silver linings.

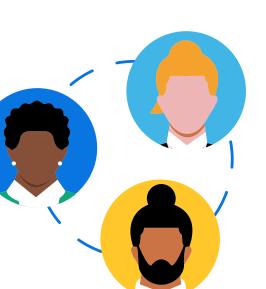
Being part of the team to help lead Workday through 2020 has taught me so much both personally and professionally, and as I reflect on what I've learned, there are key lessons worth sharing that I'll carry into this year.

Rising to Change

Embracing agility and innovation is critical in today's ever-changing world. Our Workday products became even more critical as companies across the globe needed innovative ways to support their employees and effectively operate their businesses from their living rooms, kitchens, and bedrooms. I have the pleasure of leading our Workday on Workday team, which is the team that drives the use of our own products for Workday employees. I know firsthand how much we relied on our own products internally through a historic year.



I have an even deeper appreciation for being at a forward-thinking company that values agility and continues to invest where it matters most for our customers.

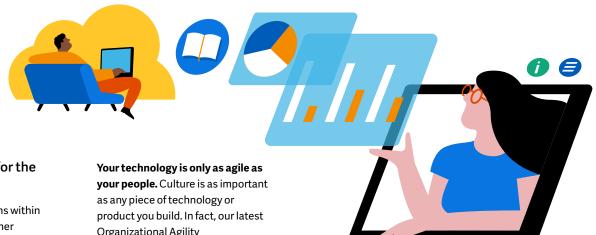


For the first time ever, we closed our quarter virtually using Workday Financial Management and constantly leveraged the iterative finance modeling of Workday Adaptive Planning. We utilized Workday People Experience to keep our employees informed about COVID-19. Throughout the year, we kept security at the forefront of all that we do, helping ensure our employees, and those of our customers, could continue to do their jobs securely in remote environments.

Once it was clear we could ensure productivity for employees, we focused on driving key cross-functional initiatives. In some ways, given restrictions such as no travel, leaders across Workday (and across the industry) were more accessible, making it easier to collaborate and drive immediate progress.

We also used the rise in external collaboration to crowdsource best practices and share knowledge on how companies were working through their response.

Last year gave me a great opportunity to connect with other CIOs to understand how they activated and iterated their plans, and which investments continue to take priority (including those specific to the pandemic, such as contact tracing). The flow of information has been endless—I've never seen collaboration on such a frequent and recurring basis. When we talk about new norms, I would love to see this continue.



Lessons Learned for the Road Ahead

The ongoing interactions within my team and among other business leaders have taught me that the frequency and clarity of communications will be just as important when we return to the office. Businesses all over the world have shown they can be successful, whether work gets done from home or in the office, and employees are just as committed to getting the job done, often surpassing expectations. This brings me to some of the key lessons from last year:

Employee engagement should remain a top priority. Despite all that's happened, we've stayed intentionally focused on engaging with our employees and trying to weave in fun. We've hosted virtual experiences and fun online events to keep our teams connected and engaged, such as virtual escape rooms, international cooking classes, themed bingo, family game nights, and even chocolate tasting to keep things sweet! And for our new hires-imagine starting at a new company and never meeting your peers or leaders in person! I give a lot of credit to our employees around the globe for not missing a beat. It's more important than ever to stay committed to having fun, operating with integrity, and driving innovation through everything you do.

your people. Culture is as important as any piece of technology or product you build. In fact, our latest Organizational Agility research found that culture is the biggest barrier to most transformation efforts. Training is critical to ensure everyone is up to date with the skill sets they need in order to keep up with the speed of change. Change will fail without communication—among teams, and with end users and customers.

Keep strengthening relationships.

Collaboration is critical for the next challenge we may face. CIOs need to continue strengthening relationships and aligning on strategies that will build opportunities against the backdrop of a post-crisis world. My best advice would be to think like a general manager (across customers, employees, and shareholders), understand the business context, be ready to offer options (striving for good, not perfect), and be ready to share with others how you've overcome obstacles.

Every challenge has silver linings.

Even though we worked from our homes all over the world, Workday employees creatively came together in ways like never before to preserve our culture, look out for each other, and take care of our customers.

My children may have missed graduation ceremonies, proms, and other big milestone celebrations, but as I reflect on 2020, I'm most grateful that we had more time together as a family than ever before, and we have our health to be thankful for. I sometimes think their generation will be especially resilient, and more grateful for the "little things," like going to a movie, or restaurant, or grandma's house.

I'm also grateful for a team that rallied to the remote demands, a company that found new ways to embrace its culture, and customers and partners who trusted us. I have an even deeper appreciation for being at a forward-thinking company that values agility and continues to invest where it matters most for our customers.

Let's move forward together, toward health, safety, and a brighter work day for all.



I've never seen collaboration on such a frequent and recurring basis. When we talk about new norms, I would love to see this continue.

How Resilience Became a **Powerful Enabler for Business** Continuity—and Ingenuity **Workday Executive** A Workday executive discusses how the pandemic has accelerated key business initiatives such as cloud computing, worker reskilling, and inclusive company cultures.

he year 2020 brought many challenges, including fear for the health and wellness of our communities, economic distress, and disruption in nearly every facet of our personal and professional lives. And while the world slowed down in some ways, in other ways it did not.

For many business leaders, the pandemic accelerated key business initiatives that have been top of mind for years. Digital transformation efforts such as moving systems to the cloud, reskilling and mobilizing workforces, and taking more steps to foster a company culture where all

employees can do their best work have reached a new level of focus and increased investment.

Businesses have been forced to plan for multiple scenarios simultaneously and shift from plan to plan as circumstances change. This unstable environment has required leaders to pivot our businesses in ways we may not have realized were possible. We learned that more than ever before, necessity is the mother of invention to maintain business continuity.



Businesses learned to be industrious and use ingenuity when faced with new requirements and challenges.



Reskilling used to be viewed as a talent strategy initiative only. Now, it's a business imperative.

When Digital Transformation Mattered Most

At the onset of the pandemic, businesses that were already in the cloud had an edge. They were able to take advantage of the business stability enabled by the cloud, including scalability, flexibility, and remote access. In turn, this let them focus on finding new revenue sources, or new ways to engage employees and keep their cultures strong. Because of the cloud, they were able to close their books remotely, use data to gain better insights into their businesses, and get much better at financial and workforce planning.

That's why it's not surprising that even despite massive disruption in the world, businesses continued to move to the cloud all year long (as my colleague Emily McEvilly points out, we had more than 190 go-lives on Workday last year).

Even with the cloud, none of us thought we could run so much of our economy with a largely remote workforce.

Businesses learned to be industrious and use ingenuity when faced with new requirements and challenges.

For example, they were able to change pay rates and work leave policies for frontline workers. They were agile when it was important not just to their business, but to their workers and the good of their communities, such as pivoting their holiday schedule and adding additional days off throughout the year. These process changes extended to initiatives focused on talent, hiring, skills, and more.

Reskilling and Mobilizing the Workforce

Reskilling used to be viewed as a talent strategy initiative only. Now, it's a business imperative. Starting with the onset of the pandemic, businesses have had to mobilize to reskill employees to fill new roles. As a society facing high unemployment, we have a responsibility to connect displaced workers with new opportunities. Initiatives led by Opportunity@Work and People + Work Connect have helped match skills with opportunities, which is especially important in industries that have seen drastic business changes.

Knowing reskilling is so important to our customers, it's been at the heart of our investments in talent solutions, such as Workday Talent Marketplace.

It's been inspiring to see how organizations have been able to transition to a reskilling environment not over a couple of years, but literally within weeks. For example, a leading fitness apparel company recently shared how it quickly redeployed manufacturing efforts and reskilled its employees to produce masks and other PPE.







Well-Being, Culture, and Productivity

Creating a culture where everyone thrives is now a key pillar for business success for every industry. This past year has really hit home in helping business leaders understand how mental and physical well-being directly connect to employee engagement and productivity. We all know that if our employees don't feel included and safe in the workplace, this has a major impact on company culture.

Research on company culture shows that a happy and productive workforce is more engaged with the company mission, equipped with the tools and resources they need to do their jobs, and enabled to contribute and make decisions that impact the business. In my role with Workday Ventures, we're seeing a dramatic increase in new, innovative companies and early stage companies focused on improving the employee experience and new ways of working.

Well-being and engagement solutions are attractive to our customers and play an important role to ensure their employees feel safe and empowered to do their best work.

We're not ever going back to how life was before COVID-19. We're only going forward. What we're taking with us is resilience and perspective.

Mindset Matters: Bringing New Perspective to 2021

There are many hard lessons from 2020 that we'll take with us. One lesson I've revisited many times this year is the power of mindset and the ability to keep moving forward. I've been reminded of a little sign my mom hung on my bedroom wall when I was a teenager: "Don't look back, you're not going that way." We're not ever going back to how life was before COVID-19. We're only going forward. What we're taking with us is resilience and perspective.

While we don't know what the future will bring, as business leaders, we'll remember that when faced with a crisis, we were able to rapidly respond. Yet, it shouldn't take a shock to the system to move key business objectives—such as reskilling—forward.

We've learned, with the right technology solutions in place, rapid change and adaptation is always possible, especially when the outcome is greater care and support for our employees, customers, and communities.



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About Workday

Workday is a leading provider of enterprise cloud applications for finance and human resources.

Founded in 2005, Workday delivers financial management, human capital management, planning, and analytics applications designed for the world's largest companies, educational institutions, and government agencies. Organizations ranging from medium-sized businesses to *Fortune* 50 enterprises have selected Workday.

To learn more about our technology, visit: workday.com/cloudtechnology

