

An illustration on the left side of the page shows a group of people walking up a set of stairs. Overlaid on this scene is a green molecular structure with yellow and green spheres. In the foreground, a man in a teal shirt points upwards while a woman in a red shirt looks on. The background features faint images of people in a meeting and butterflies.

MIT Sloan
Management Review

**RESEARCH
REPORT**

In collaboration with

Deloitte.
Insights

FINDINGS FROM THE 2018 DIGITAL BUSINESS
GLOBAL EXECUTIVE STUDY AND RESEARCH PROJECT

Coming of Age Digitally

Learning, Leadership, and Legacy

By Gerald C. Kane, Doug Palmer, Anh Nguyen Phillips,
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Coming of Age Digitally

Executive Summary

Adapting to increasingly digital market environments and taking advantage of digital technologies to improve operations and drive new customer value are important goals for nearly every contemporary business. The good news is that many companies are beginning to make the necessary changes to adapt their organization to a digital environment.

Based on a global survey of more than 4,300 managers, executives, and analysts and 17 interviews with executives and thought leaders, *MIT Sloan Management Review* and Deloitte's¹ fourth annual study of digital business shows that the digital business environment is fundamentally different from the traditional one. Digitally maturing companies recognize the differences and are evolving how they learn and lead in order to adapt and succeed in a rapidly changing market. This year's research provides some important insights into how companies are adapting to a digital business environment:

- **Organizations are beginning to make progress digitally.** For the first time in four years, we've seen an uptick in how survey respondents evaluate their company's digital maturity. Many established companies are beginning to take digital disruption more seriously and respond. If companies were waiting for competitors to act before responding, this shift suggests the time to act is now.
- **Developing — not just having — digital leaders sets digitally maturing companies apart.** Simply having the right digital leaders is not the most important indicator of digital maturity — more than 50% of digitally maturing companies still report needing new leaders. Yet, these maturing companies were far more likely to report taking steps to develop the right leaders. The most digitally mature organizations are more than four times more likely to be developing needed digital leaders than the least digitally mature ones. Key traits of effective digital leadership are about enabling the organization: providing vision and purpose, creating conditions to experiment, empowering people to think differently, and getting people to collaborate across boundaries.

The most digitally mature organizations are more than four times more likely to be developing needed digital leaders than the least digitally mature ones.

ABOUT THE RESEARCH

To understand the challenges and opportunities associated with the use of social and digital business, *MIT Sloan Management Review*, in collaboration with Deloitte, conducted its seventh annual survey of more than 4,300 business executives, managers, and analysts from organizations around the world.

The survey, conducted in the fall of 2017, captured insights from individuals in 123 countries and 28 industries, from organizations of various sizes. More than two-thirds of the respondents were from outside of the United States. The sample was drawn from a number of sources, including *MIT Sloan Management Review* readers, Deloitte Dbriefs webcast subscribers, and other interested parties. In addition to our survey results, we interviewed business executives and experts from a number of industries and academia to understand the practical issues facing organizations today. Their insights contributed to a richer understanding of the data.

Digital maturity was measured in this year's study similar to how it was measured in prior years. We asked respondents to "imagine an ideal organization utilizing digital technologies and capabilities to improve processes, engage talent across the organization, and drive new value-generating business models." We then asked respondents to rate their company against that ideal on a scale of 1 to 10. Three maturity groups were observed: early (1-3), developing (4-6), and maturing (7-10).

spondents say the pace of business; culture and mindset; and a flexible, distributed workplace are among the biggest differences between digital and traditional business. Such findings mean many companies should change how they operate in order to compete. Respondents also report that the biggest challenges are the need to experiment and take risks, dealing with ambiguity and constant change, buying and implementing the right technology, and distributed decision-making.

- **Digitally maturing companies push decision-making further down into the organization.** At the same time, there appears to be a disconnect between the C-suite and middle managers regarding this. While 59% of CEOs believe they are pushing decision-making down, only around 33% of vice president and director-level respondents report that it is happening. While one may be tempted to conclude that leaders are unwilling to surrender their authority to others, some of our evidence suggests that employees may be reluctant to step up and assume their roles as digital leaders.
- **Digital business is faster, more flexible and distributed, and has a different culture and mindset than traditional business.** Survey re-

- **Digitally maturing organizations are more likely to experiment and iterate.** Experimentation and iteration are key ways companies respond to digital disruption. They alone, however, are not enough. Companies should use the results of those experiments — successes and failures — to drive change across the organization. Companies with abundant resources may be tempted to just "throw money at the problem" of digital disruption, but that doesn't generally lead to continuous and actionable learning in the way that experimentation does. Instead, established companies should figure out how to experiment to compete in the future while also maintaining the core business so that it can perform in the present.
- **Individuals report needing to continually develop their skills but say they get little to no support from their organization to do so.** Some 90% of respondents indicate that they need to update their skills at least yearly, with nearly half of them reporting the need to update skills continuously on an ongoing basis. Yet, only 34% of respondents say they are satisfied with the degree to which their organization supports ongoing skill development. Many organizations continue to rely on formal training for developing these skills, but cultivating an environment that allows on-the-job learning may be more effective. Many employees are also willing to do it themselves, given the right support. Of those surveyed, 90% indicate they want to use data analytics from their organization to help them improve their own performance.

Introduction: Digital Transformation at John Hancock

John Hancock Financial Services Inc. is a well-established Boston, Massachusetts-based business with a 150-year history and 3.5 million policyholders. However, about two years ago, the company's leadership realized that the business and organization needed to be refreshed for the 21st century and to better compete in a digital world.

The first step was to hire some new people with the necessary skills to lead the digital transformation efforts. The company first recruited Barbara Goose in October of 2016, who became senior vice president and chief marketing officer. She brought a background of more than 20 years of experience in digital marketing, most recently as global chief marketing officer of a financial technology company in the mortgage and real estate industries. Goose then assembled her team to lead the digital renewal, including Lindsay Sutton, who was recruited from a marketing technology agency to become assistant vice president and digital strategy lead.

Goose wanted the company to become more innovative, more entrepreneurial, faster moving, more empowered, and more collaborative. The company needed to change the way it worked, with whom it was working, and how employees thought about their work. To make these types of fundamental changes, Goose first needed to give the people tasked with the changes the freedom to work outside the traditional bureaucratic structures that define many legacy companies. Innovation teams needed to be isolated and protected, "to be freed from the corporate shackles in some ways to be able to innovate and progress faster," says Goose.

A key initiative under this approach has been the development and launch of a new mobile advisory investment app called Twine. The San Francisco, California-based cross-functional group responsible for the app "functions just like a startup," Sutton notes. "It's having people at the table together but

not losing any steam by having too many powers-that-be in those conversations." Goose adds, "When you put cross-functional employees on a dedicated team, they're baked into those teams, so they understand what the team is doing. They understand the mission and the urgency, so decisions are made differently."

They also communicate the lessons learned from experiments across the organization to make sure other teams can benefit. "If we win or have built something, it's about packaging it up to be able to share so that other people can see how it's been done," Sutton says. "I've already noticed that we've been able to use a lot of the learnings we've had just getting to the launch stage for Twine in other pockets around the organization."

Yet, innovation teams, incubators, and the successful release of mobile apps aren't sufficient to drive the type of change John Hancock is seeking. Goose's task is bigger: "To be successful in scaling, we realized that we need to integrate this process into our core."

Digital transformation can't just be a top-down mandate to change. Instead, it involves creating the conditions under which existing employees start thinking and working differently, and driving change from the bottom up as well.

"At the end of the day, so much is about talent. Talent is two-pronged, by skill set and by attitude," Sutton notes. "That's what you need to drive an organization forward into an era they are primed to be a part of. Attitude is the one thing we sometimes forget." With the right attitude, people can and will begin to develop the skills they need to work and learn in the fast-moving and ambiguous conditions that are at the heart of digital business. "People with that mentality are everywhere," she adds. "Some of them need to just be reminded that they can be that person."

Executives at John Hancock see the competitive landscape shifting and are trying to create new competencies for competing in a digital world and reshape how their employees work, think, and learn. Yet, driving the need for change can be difficult

when established companies are performing well. “It’s hard to drive change when people feel that the company has been successful doing everything the way it always has,” Goose says. “In looking toward the future, they can see that the world and customer needs are changing. We need to evolve and experience a revolution to get to a very different place as fast as we can, but it’s hard to do that quickly in such a big company.”

THE IMPORTANCE OF A GROWTH MINDSET FOR DIGITAL TRANSFORMATION

Research psychologist Carol Dweck contrasts two types of individual mindsets: a growth mindset and a fixed mindset.¹ Her research reveals that mindset plays a much bigger role than innate talent when it comes to success. People with a fixed mindset believe that intelligence (along with talent, personality, and other traits and capabilities) is static: You either have it or you don’t, and there is little you can do to change it. Having a growth mindset begins with the fundamental belief that intelligence (or talent or other personality or capabilities) *can be developed*— that it is not static or predetermined.

A growth mindset is key to digital transformation. Many people don’t innately possess the skills necessary to succeed in a digital world, but they must develop them as they adapt to the new challenges wrought by digital disruption. Organizations can develop a growth mindset, too. Much of what Barbara Goose, senior vice president and chief marketing officer at John Hancock Financial Services, is trying to accomplish is to get the company to realize that it, too, can develop the processes and capabilities to compete more effectively in a digital environment.

Both individuals and organizations need a growth mindset to learn how to adapt to the ongoing changes posed by digital disruption. Digital disruption is, in fact, many little disruptions that unfold over time and interact in unexpected ways. The best way to respond is to likewise be continually sensing and adapting to these environmental changes wrought by digital technologies in small, manageable ways instead of in a singular, massive organizational overhaul.

What Advancing Digital Maturity Means For Your Business

These are the themes around learning and leadership we’re seeing play out across companies and industries in our 2018 *MIT Sloan Management Review* and Deloitte annual report on digital business. For the past four years, we have studied how companies are responding to changes in the business environment resulting from advances in digital technologies.

Consistent with research in past years, we explored the organizational aspects of digital transformation. We examined how organizations adapt their business strategy, their organizational structure and culture, and their talent and leadership models to better compete in a digital world. Extending this ongoing research theme, this year we explored how leadership and learning at digitally maturing organizations are transformed at both the organizational and individual level. (See “The Importance of a Growth Mindset for Digital Transformation.”)

Our research is focused on the concept of digital maturity, which represents the degree to which organizations have adapted themselves to a digital business environment. The distribution of digital maturity was relatively consistent in our sample over the past few years, suggesting that companies weren’t making significant progress.

This year is different. For the first time, we observed a meaningful uptick in digital maturity. (See Figure 1, page 7.) The percentage of respondents who report their company as being in the early stage of digital disruption has dropped nearly 9 points from last year, and the percentage of those reporting their company is either in the developing or maturing stage has gone up approximately 3 and 5 points, respectively.

These shifts suggest that companies are beginning to take digital disruption more seriously and make meaningful changes in how they work. Such shifts persist even when controlling for company age and

other organizational characteristics, and may anticipate even greater changes in the years to come.

It is possible that many companies have not responded to digital disruption sooner because their competitors weren't responding, either. Now that some companies have started to move more aggressively to adapt their organization to a digital world, it may mean that others may soon follow in response. As we saw in the John Hancock example, companies may be reluctant to adapt while they are successful. If your company is not making meaningful steps to become more digitally mature, our data suggests that now may be the time to start to take action.

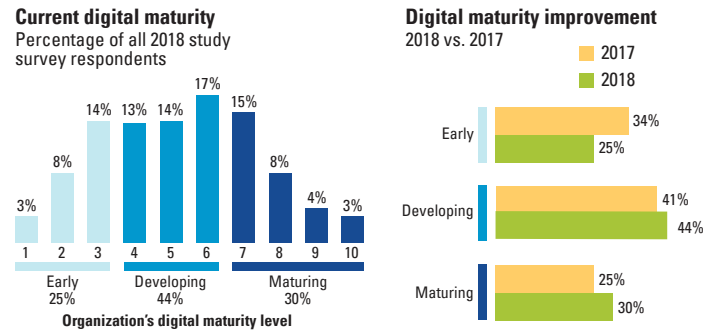
We might be wary of overinterpreting these trends if they weren't backed up by anecdotal data from our interviews. We've interviewed several other established companies in recent years — such as Walmart Inc., General Electric Co., and Cisco Systems Inc. — all of which are taking significant steps toward becoming digitally mature businesses.

Competency Traps: What Got You Here Won't Get You There

Just because companies are taking digital disruption seriously doesn't mean making the required changes will be easy. Established companies in particular typically face significant challenges when it comes to digital transformation — and one of the biggest is their past success. This is often referred to in management literature as *competency traps*.

Competency traps are the mistaken beliefs that the factors that led to past success will also be associated with future success. Digital technologies are changing the competitive landscape — providing new ways of delivering value to customers and new service opportunities — and factors associated with past successes may not be associated with future success. Our data shows that older companies are generally less digitally mature, meaning they are more likely to be in the early stages and less likely to be in the maturing stages. If companies don't change their processes and mindsets to take advantage of new opportunities for doing business made possible

FIGURE 1: We asked respondents to “imagine an ideal organization utilizing digital technologies and capabilities to improve processes, engage talent across the organization, and drive new value-generating business models.” We then asked respondents to rate their company against that ideal on a scale of 1 to 10. Three maturity groups were observed: early (1-3), developing (4-6), and maturing (7-10).



2017 data sourced from G.C. Kane, D. Palmer, A.N. Phillips, D. Kiron, and N. Buckley, “Achieving Digital Maturity” MIT Sloan Management Review and Deloitte University Press, July 2017.

2018 maturity percentages do not total 100 due to rounding.

through an emerging digital infrastructure, then other established or new competitors likely will.

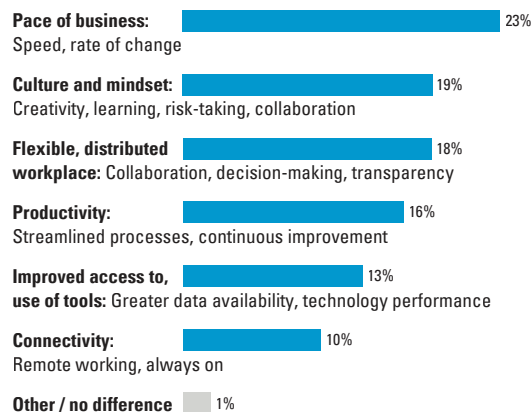
General Electric is one example of a company seeking to overcome competency traps. In the 1990s, GE became known for its adherence to a process known as Six Sigma, a set of techniques for reducing the error rate in manufacturing processes to 0.00033%. Six Sigma was a key factor associated with GE's success during the '90s and early 2000s.

Six Sigma, however, has its limitations. Followers tend to find it's exceedingly difficult — if not impossible — to maintain Six Sigma standards while also trying to experiment with new ways of doing business. The process is not conducive to the types of agile responses to environmental shifts that characterize the world of digital business.

To address the need for faster change and agility, GE has developed a complementary approach known as FastWorks, which combines lean startup principles created by business consultant Eric Ries with GE's size and resources. But as GE's culture transformation leader Janice Semper notes, “It's been harder in some of our businesses where they don't have as much volatility or disruption yet. They don't necessarily feel the same need as those parts of our businesses that

FIGURE 2: Digital business requires companies to act and respond faster than they ever have before.

What is the biggest difference between working in a digital environment vs. a traditional one?



are being disrupted or are in extremely challenging, volatile, ambiguous environments where this is really the only way to go forward and work.”

Avoiding competency traps is necessary for achieving the kind of digital transformation that leads to long-term success. But it might not be sufficient. Revenues for the newspaper industry, for instance, reached an all-time high around the year 2000, at the height of the dot-com boom. But that was before the internet brought new ways to consume content, new content providers, and a shift in consumer preferences — all of which contributed to consolidation and upheaval in the industry over the next decade. More agile processes would not have saved many newspapers. New business models, not just new competencies, had to become part of the solution.

How Is Digital Business Different?

Before your organization can respond to digital disruption, it is important to understand the nature

of that disruption. We asked survey respondents to describe how digital business differed from traditional business in their own words. Our research team coded more than 3,300 responses into several categories. Complete results are shown in Figure 2.

The biggest difference respondents cite is the pace of doing business. Put simply, digital business requires companies to act and respond faster than they ever have before. The challenge is that many of the communication and decision-making structures in organizations can’t move as fast as necessary. “It’s the speed at which the landscape is changing through digital, allowing new competitors to play, that makes it really transformative,” says an executive we interviewed. “Not only is technology making industries work faster and more efficiently — we all have access to the same technology. It’s the entrance of new competitors that we would never have thought of before that’s throwing everyone a huge curveball.”

The second most common difference respondents indicate relates to culture and mindset. These responses centered around the need for changes to organizational culture, but responses were not entirely positive. Many respondents note that these cultural shifts also result in tensions with employees who have a more traditional mindset. In other words, competency traps may exist at the individual level as well, especially within established companies. Employees who have had success with a particular way of working in the past may be reluctant to change those ways of working for the future.

The third most common difference was organizational structure. Melissa Valentine, assistant professor of management science and engineering at Stanford University, says, “It seems pretty clear that the boundary of the firm is changing in significant ways. I hear the ‘core periphery’ idea a lot here in Silicon Valley.” In that model, a company relies on a group of core employees it plans to invest in and nurture while tactically leveraging networks of external, on-demand talent. Even large companies, Valentine notes, may consist of a “core team and then peripheral employees and projects around it” instead of full-time employees working for a single

company. For some companies, this model may require a new perspective on how to blend full-time employees with talent sourced from the open market. Recent studies find that employers expect to dramatically increase their dependence on contract, freelance, and gig workers over the next few years.²

Finally, the fourth most cited difference was productivity. As we noted previously, however, productivity improvements can be a double-edged sword. According to John Hagel, cochairman at Deloitte LLP’s Center for the Edge, “If you are truly going to accelerate performance improvement, you have to stop focusing on efficiency. If it’s just efficiency, that’s a diminishing-returns game. The more cost-effective and faster you are, the harder it’s going to be to get to that next level of efficiency. But if you focus on effectiveness, on impact, on value delivered to whatever the arena is — the sky is the limit. That requires a mindset shift, getting out of that efficiency mindset.”

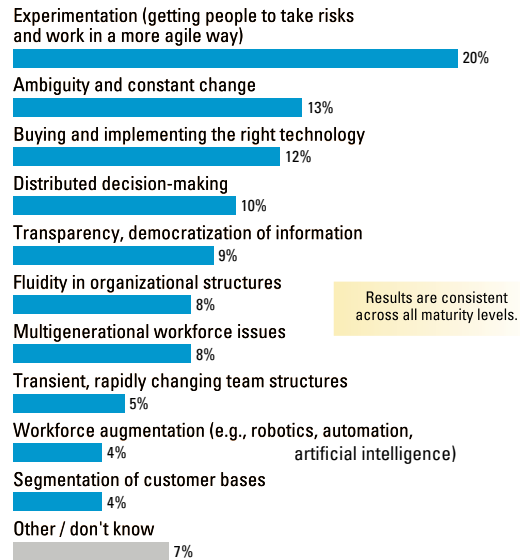
Challenges of Competing in a Digital Environment

We also asked respondents what challenges organizations are most likely to face when seeking to compete more effectively in a digital environment. Again, top responses point to characteristics with which more established companies are more likely to struggle.

As Figure 3 shows, respondents report that the biggest challenge their organization faces in terms of competing in a digital environment is lack of experimentation. We’ve seen that the need for experimentation is something established companies struggle with, because they are often driven by a fear of failure. Maile Carnegie, group executive of digital banking at financial services firm Australia and New Zealand Banking Group (ANZ) Ltd. of Melbourne, Australia, says it’s fascinating how some young, digital companies experience failures every single day in their efforts “to achieve their purpose, and they’re comfortable with it.” She notes that comfort “starts with the audacity of their mission,” whereas many established companies have a “fear of failure baked right into” their culture.

FIGURE 3: Respondents report that the biggest challenge their organization faces in terms of competing in a digital environment is lack of experimentation.

The biggest challenge impacting a company’s ability to compete in a digital environment



“In a company like Google, its purpose is to literally change the world,” Carnegie says. “The company holds itself to a lofty and unachievable mission. If you compare that to a lot of legacy companies, they have achievable and incremental missions. One of the obvious outcomes of that is if you’re trying to strive for something that is incremental, you’ll hit your goal, but you are also going to get small, incremental results.”

The second most significant challenge respondents report with respect to competing in digital business is how organizations wrestle with ambiguity and constant change. One executive says, “Organizations will become a lot more fluid. The degree of ambiguity will be increased, and the degree of speed required will be increased. They need leaders who are able to assemble at any point in time a coalition of people who are guided by purpose, more than task or functional area necessarily.”

The third most significant competition-related challenge respondents say they face is buying and implementing the right technology. Interestingly, this response exhibited the biggest difference between early and maturing companies, with 15% of respon-

dents from early-stage companies indicating this problem as the biggest and only 9% of respondents from maturing companies saying the same. Although maturing companies may be simply better at this task, our perspective is that many early-stage companies overestimate the technological component of digital maturity while more maturing companies regard the challenges in organizational terms.

Organizational Learning Through Experimentation and Iteration

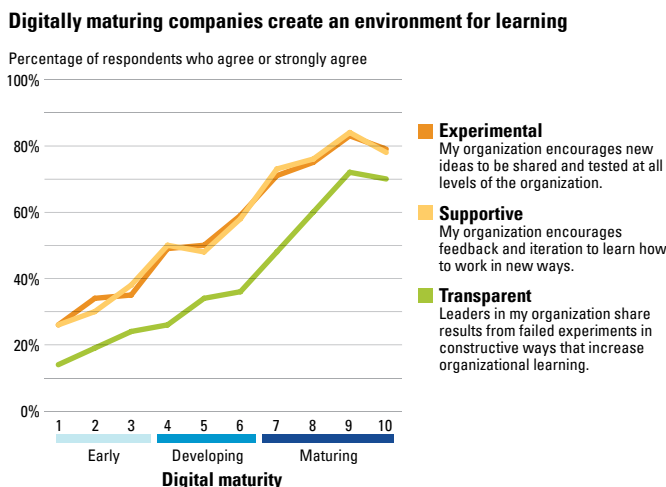
A key challenge posed by digital disruption is that a fast-changing digital environment requires more exploration and experimentation than most companies are prepared to manage. Experimentation is at the heart of digital maturity. Companies like Google Inc., Facebook Inc., and Amazon.com Inc. are constantly running experiments in an effort to continually im-

prove the platform experience. Facebook CEO Mark Zuckerberg estimates that 10,000 versions of his social media site are running at any given instance as it tries and finds small improvements.³ Others turn to Silicon Valley startups, such as Optimizely Inc. and Split Software, that provide digital experimentation platforms on which companies can run experiments with their digital infrastructure.

Organizations can learn to adapt to an unexpected, ambiguous, and rapidly changing environment by investing in experimentation and figuring out what works. Cisco, for example, has launched about 10 innovation centers around the world to engage with startups and customers in local communities, problem-solve, and try new things. Additionally, it runs open efforts to cocreate with customers and partners, and hosts an annual innovation challenge.

Cisco takes a portfolio approach to innovation investment, according to James Macaulay, senior director of the Cisco Digitization Office. “You need some highly predictable, highly reliable asset classes, so to speak, but you also probably want to have some moon shots in there that could potentially return a thousand-fold,” he says. “We’re trying to balance predictability of returns while allowing for the opportunity of very high returns on investment.”

FIGURE 4: Digitally maturing companies are more likely to create an environment that enables learning and innovation through experimentation.



Experimenting Within the Enterprise

What does effective experimentation look like? We asked three different questions about experimentation and found that digitally maturing companies are more likely to create an environment that enables learning and innovation through experimentation. (See Figure 4.) They (1) encourage new ideas to be shared and tested at all levels of the organization; (2) encourage feedback and iteration to learn how to work in new ways; and (3) share feedback of failed experiments to increase organizational learning.

While experiments in organizations will likely move more slowly than those on digital platforms, increased digitization of communications and other business processes creates the opportunity for rapid experimentation or allows for “natural experiments,”

where researchers can compare data on differences that occur as a result of normal business routines. For example, analytics firm Humanyze helps companies use digital sociometric data generated by employees through existing platforms or custom employee badges to learn about employee behavior and make changes to the organization. President and CEO Ben Waber describes four levels of sociometric capabilities that are now available, though still in early stages of rollout:

1. Analyze the effects of a decision you have already made, and see the impact before and after that decision.
2. Intentionally design an intervention with a test group and a control group.
3. Test multiple things at once.
4. Run tests across every single people decision you make.

Although he notes that “the furthest along any company right now is single tests,” these capabilities demonstrate how much more is possible in this area.

Our research suggests that most employees are surprisingly open to using new data analytics tools, what Humanyze calls “people analytics,” to help them improve their performance. Some 90% of survey respondents indicate that they are open to these data and analytics applications. Waber’s experience echoes this openness. Employees get to see their own data, “which is essentially a Fitbit for your career,” he says. “You can compare yourself to the team average. And not just averages — let’s say I’m a salesperson, and I want to be the best salesperson. Well, do I know what the best salespeople in the organization do? And where are there significant differences?” People analytics can allow employees to use communication and other digital data to compare their behaviors to the highest performers and highlight the differences in behavior most associated with success.

Beyond Experiments to Real Change

Yet, digitally maturing companies do more than just run experiments.

First, they know experimentation alone is generally not enough. Scaling those experiments is also required. While companies along our digital maturity spectrum are likely to experiment with digital technologies, maturing companies are more likely to take the results from the experiments to drive change across the organization. Deloitte’s Hagel wants to reframe the innovation conversation entirely. Too many companies approach innovation as “something that’s done on the side,” he says. They think that if they have an innovation lab in Silicon Valley, that’s enough and “everybody else just does their job.” Instead, he says, “everyone in the organization needs to innovate — and not just occasionally but every day they’re on the job.”

Second, as companies begin to experiment more, it adds on pressure to balance experimentation (learning new ways of doing things) with effective exploitation (leveraging existing competencies and established practices). In a foundational paper on organizational learning, Stanford University professor James G. March noted the importance of balancing exploration and exploitation in organizational learning.⁴ In short, organizations should find new ways of doing business through these two means while also maintaining a viable business and exploiting established competencies. In a *Harvard Business Review* article, authors Charles A. O’Reilly and Michael L. Tushman referred to companies that successfully accomplished this balancing act as “ambidextrous organizations.”⁵

Cisco’s Macaulay echoes that need, noting, “One of the key challenges any large company faces — any large, successful company — when it comes to digital transformation is maintaining your existing business while expanding into new businesses, in some cases where maybe there’s some friction between those two. That’s something all large companies must manage as they innovate and try to disrupt themselves in the most positive sense of the word.”

Our survey data supports this view. We found that digitally maturing companies are not necessarily more likely to experiment than early-stage companies, but they are more likely to report balancing the

need to explore new competencies while also exploiting existing capabilities.

Larger companies also need to realize that simply throwing more money at the problem is not the answer. In fact, lack of money may be an advantage on this front. Beth Israel Deaconess Medical Center chief information officer (CIO) Dr. John Halamka

says, “It helps if you’re underfunded. It forces you to be scrappy. That’s a big part of the culture.” Although he works at a \$5 billion health care system, the IT budget is only 1.9% of the organization, forcing Halamka “to be edgy and innovative.”

Kimberly Lau, senior vice president of digital and head of business development at *The Atlantic*, describes a common situation at midsize firms: “You have to be focused on where you make your bets. We have to choose carefully, because we’ve got limited resources. And for me, that leads to an imperative that you work fast and you move on quickly, because there’s always somewhere else to put those resources.”

FIGURE 5: More than 90% of respondents say they need to update their skills at least yearly to work effectively in a digital world.

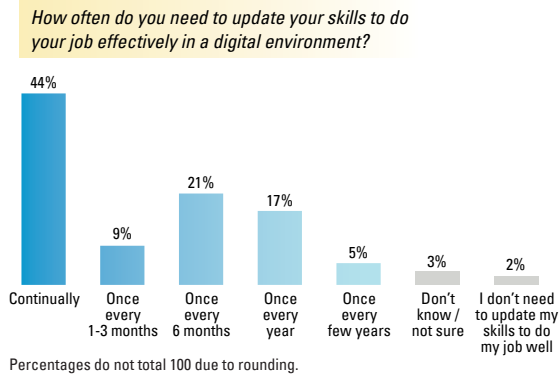
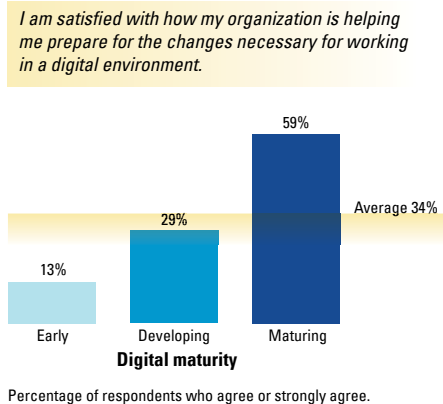


FIGURE 6: Digitally maturing companies are doing more to help their employees develop the skills they need to compete.



Continuous Learning Is Critical for Individuals

Given the fast-paced, ambiguous environment that characterizes digital business, we asked survey respondents to what extent they need to update their skills to work effectively in a digital environment. Although we expected respondents would indicate that some skill updating is necessary, we were somewhat surprised at the extent reported: More than 90% of respondents say they need to update their skills at least yearly to work effectively in a digital world, with 44% reporting they need to update their skills “continually” to do their job effectively. (See Figure 5.)

Unfortunately, our results also suggest that organizations could do more to support employees’ perceived need to update their skills. When we asked employees to what extent they are satisfied with how their organization is helping them prepare for the changes necessary for working in a digital environment, only 34% of respondents, across the digital maturity spectrum, on average indicated that they are satisfied. These results demonstrate considerable variation across organizational maturity, with digitally maturing companies doing considerably more to help their employees develop the skills they need to compete. While 59% of respondents from digitally maturing organizations are satisfied with how their company is helping them prepare for changes necessary for work-

ing in a digital environment, only 13% of employees at early-stage companies and 29% at developing-stage companies feel that way. (See Figure 6, page 12.)

What is the reason behind significant dissatisfaction with skill development support? Our survey results suggest the key reason is obvious: When asked an open-response question about how their company is supporting the development of digital skills, nearly 30% of respondents from early-stage companies explicitly said in their text response that their company provides little to no support for developing digital skills. Respondents actually wrote in “none” or some variant. (See Figure 7.)

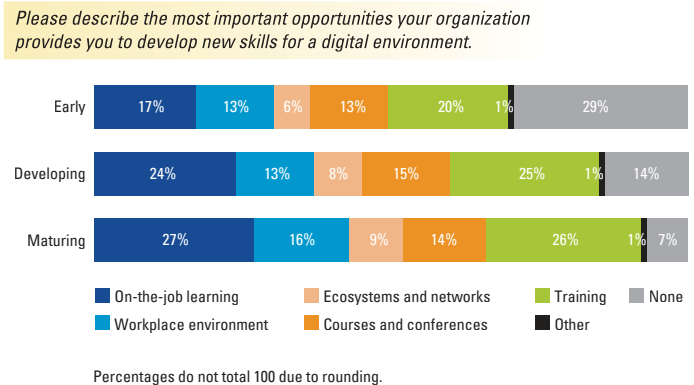
Beyond Training to Experience

Another explanation for the dissatisfaction could be in *how* these companies are helping employees develop digital skills. Companies may rely too heavily on studying and being taught, while undervaluing the role of the practicing and experiencing sides of learning. Employees from digitally maturing companies are more likely to say on-the-job training and workplace environment are bigger sources of digital skill development. GE’s Semper takes it a step further, noting that in regards to the company’s FastWorks training courses, “our data tells us that just going to a training program has absolutely no impact on behavior change.”

Colin Schiller, president of San Francisco-based learning platform Everwise Corp., believes that a transition away from traditional human resources-driven training is already under way. Schiller expects training to “shift much more into the hands of line leaders or individuals” who find tools or apps that work really well and want to use them personally and in work teams.

One executive who studies successful, digitally mature companies says an almost “magic combination” of individual experiences and capabilities meshed with corporate culture is the sweet spot for learning. If organizations can identify their own strengths, it will help them work across their ecosystem — including partners or nearby universities, for instance — to create a better-trained and better-equipped workforce.

FIGURE 7: Companies may rely too heavily on studying and being taught, while undervaluing the role of the practicing and experiencing sides of learning.



Developing — Not Just Having — Leaders Sets Digitally Maturing Companies Apart

Leading organizations that are characterized by continual learning and experimentation require new skills, approaches, and capabilities. George Westerman, principal research scientist for the MIT Sloan Initiative on the Digital Economy, says a significant obstacle to digital maturity “is thinking about transformation as a technology challenge instead of a strategy or leadership challenge. In digital transformation, the transformation is more important than the digital. If you think about an opportunity as a mobile thing or an IoT thing, instead of a personalized customer experience or an agile supply chain, you’re going to really limit what your company can create. You’re going to miss the huge opportunities you can get from reinventing your business.”

Halamka of Beth Israel Deaconess Medical Center echoes this sentiment. “I would argue that as an IT leader, you don’t need to be technological any longer,” he says. “I speak 14 computer languages. Do I need to write code to be effective in my organization today? No. I need to make Gantt charts. I need to build budgets. I need to be able to have broad communication across my stakeholders and strict processes.”

Digitally maturing organizations are far more likely to be developing the types of leaders they need for the future.

FIGURE 8: Digitally maturing organizations are far more likely to be developing the types of leaders they need for the future.

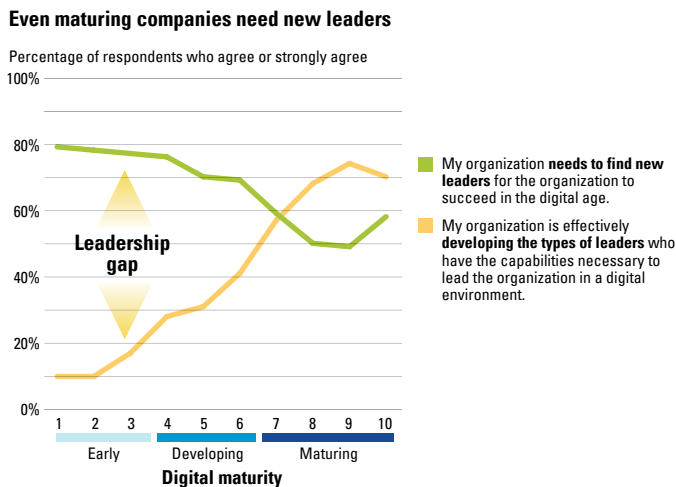


FIGURE 9: Leaders can set the stage for their employees to excel, creating conditions that will foster agility, collaboration, and innovation.

What would you like your leaders to have more of to navigate digital trends? (Top 3 responses)

Percentage of respondents who rated choice No. 1 are shown

Direction: Providing vision and purpose	26%
Innovation: Creating the conditions for people to experiment	18%
Execution: Empowering people to think differently	13%
Collaboration: Getting people to collaborate across boundaries	12%
Inspirational leadership: Getting people to follow you	10%
Business judgment: Making decisions in an uncertain context	8%
Building talent: Supporting continuous self-development	7%
Influence: Persuading and influencing stakeholders	5%
Don't know / not sure	1%

Interestingly, the most significant differentiator between early-stage and maturing companies is not whether their organization has these types of digital leaders. We asked respondents whether their organization needs to find new leaders in order to succeed in the digital age. While we found some difference between early-stage and maturing companies, the gap was smaller than we expected. Nearly 80% of early-stage companies report needing new leaders for the organization to succeed in the digital age, and more than half of respondents from digitally maturing companies also report needing new leaders.

Yet, we *did* find a critical difference between early and maturing companies in what they are doing about this need for new leadership. Digitally maturing organizations are far more likely to be developing the types of leaders they need for the future. While 64% percent of respondents from maturing companies say they are effectively developing leaders, only 14% of respondents from early-stage companies say they are. (See Figure 8.)

What Do Digital Leaders Look Like?

What traits do these digital leaders need? We asked respondents what they wished leaders had more of to help their organization navigate digital trends. (See Figure 9.) Somewhat surprisingly, the traits cited were similar across maturity levels:

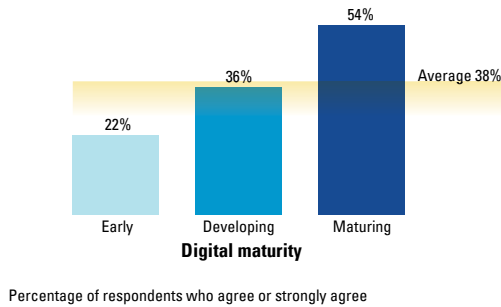
- 1. Providing vision and purpose.** This is the most desired trait of digital leaders. Clear aspirations can serve as a compass to guide employees as they work, especially in distributed environments where employees often have greater autonomy to make decisions. Yet, the vision itself may not be sufficient. Leaders must also provide the opportunity to execute it. “To drive digital transformation, you need a very strong vision for where you’re going and how it’s going to be different,” MIT’s Westerman says. “You then want to engage your people very strongly in owning and then fleshing out that vision. But then, third, you need to have very strong governance. What are the capabilities we’re going to develop so that

we can move transformations forward over and over again?”

- 2. Creating conditions to experiment.** The second most common trait respondents say they want more of is creating conditions that enable people to experiment. One executive at a consumer products company noted his own company’s efforts to be more experimental. “First, we need to be hiring and selecting for people who are more risk tolerant. Second, how do we create an organizational context where trying intelligently and not succeeding is OK and may even be a behavior that we reward? Lastly, we want to put in place some platforms — virtual or physical — where people can play and experiment with new ideas and business models, including with other parties such as universities, entrepreneurs, etc.”
- 3. Empowering people to think differently.** The third most desired trait is the ability to execute by empowering people to think differently. Thinking differently involves not only what employees see as possible but also understanding what customers expect and being prepared to respond accordingly. Cisco’s Macaulay says the company senses “that customers want to consume differently. That is, they want more cost value, experience value, and platform value. We know we must change our stripes.”
- 4. Getting people to collaborate across boundaries.** Last, getting people to collaborate across boundaries was also a common response. When we asked a separate question about the biggest barriers of collaboration in organizations, respondents reported barriers were primarily organizational in nature, such as culture, mindset, and silos. Our interview subjects thought about collaboration across boundaries in very broad terms. Halamka of Beth Israel Deaconess Medical Center, for example, spoke of collaborating with innovative

FIGURE 10: More than half of digitally maturing companies are pushing decision-making authority down into lower levels of the organization, while less than a quarter of early-stage companies are.

My organization is increasingly pushing decision-making authority down into lower levels of the organization in order to better execute in a digital environment.



organizations. Brent Stutz, senior vice president of commercial technologies and chief technology officer of Fuse Cardinal Health Inc., spoke of collaborating with partners,⁶ while Stanford’s Valentine discussed the need to learn to collaborate with robots, which she calls “co-bots,” or collaborative robots. The digital world both demands and enables collaboration beyond simple intra-organizational communication.

Creating a Culture of Distributed Leadership

While these traits are individually important, taken together they make a larger point of the need to develop a culture of leadership at all levels of the organization. Becoming a more digitally mature organization may not involve simply how a leader does so, but it may also involve rethinking who needs to lead.

We find that digitally maturing companies are more likely to be pushing decision-making authority down into lower levels of the organization in order to better execute in a digital environment. More than half of digitally maturing companies are doing it, while less than a quarter of early-stage companies are. (See Figure 10.) Last year, we found that digitally maturing companies

are more likely to organize in cross-functional teams. Combining that finding with this year's data, we get a picture of work teams that have a certain degree of autonomy to accomplish their mission. In a distributed decision-making environment, individual employees should be empowered to make decisions and effectively lead. That means leaders need to change how they lead from making and exerting hierarchical commands and control to influencing.

FLASH TEAMS: GENERATING OPPORTUNITIES THROUGH COLLABORATIVE LEARNING

The emphasis on multifunctional teams and bottom-up leadership may seem like the end of specialization, but Stanford University's Melissa Valentine doesn't think that has to be the case. "People can become valuable as they specialize," she says, but it can also afford them new opportunities to develop.

As assistant professor of management science and engineering, Valentine focuses on crowdsourcing and a relatively new concept known as flash teams — adaptable, flexible alternatives to traditional workflows and roles. For example, "back-end developers who show up at a flash team meeting can do data structure work without a lot of supervision," she says. Their specific expertise can add "a very strong sense of what that kind of development looks like."

As long as people don't get locked into one niche, they can use their background to create new business value, according to Valentine. Flash teams thrive on their openness to new outcomes and their spontaneity. They work especially well for innovative projects, "where you're prototyping, piloting, or building something new," she says. Flash teams are computationally guided teams of crowd experts, supported by lightweight, reproducible, and scalable team structures. They are instantiated through a web platform that gathers workers and manages them as they follow a structured workflow defining each task and how workers interact.

Shamim Mohammad, CIO of CarMax Inc., echoes this approach:

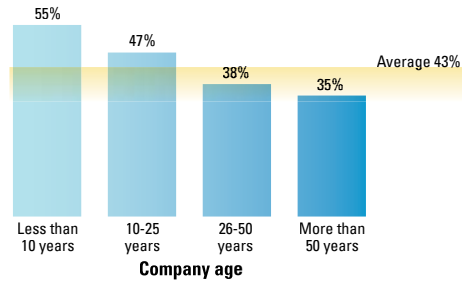
In a world that's quickly evolving, it's important to set up nimble, cross-functional product teams that can iterate quickly on ideas. They are empowered, since the leadership team never tells them how to solve a problem, but what the problem is and the KPIs [key performance indicators] to work against. This approach allows for increased feedback, a significantly faster pace of development, and trial and error to ultimately arrive at a solution that is best for customers and associates. We've also found teams take smarter risks and are more creative in how they meet their objectives. If you don't have these fully integrated teams, then take a hard look and consider if you're set up for a successful digital transformation.⁷

Carliss Baldwin, William L. White Professor of Business Administration at Harvard Business School, notes that this approach is consistent with the concept of organizational modularity. She argues that organizations are actually designed to match the dominant technology of the day. Just as technological modularity allows computer technology to improve faster by enabling different aspects to evolve at different rates, organizational modularity can help companies respond more quickly. Cross-functional teams can be swapped in or out and repurposed to take on different tasks as needed.

ANZ's Carnegie divides leadership styles into 20th century and 21st century companies. The latter type, "whether it's Google or Amazon.com or others, it is organized in an agile way," she says. "Decisions are made by the people who are closest to the customer. This means you get a lot more speed in delivery and speed to value. Employee engagement levels are also much higher in these agile 21st century companies." Indeed, our data shows a correlation between pushing decision-making down into the organization and traits such as experimentation, continual learning, and developing the types of leaders who have the capabilities to lead the organization in a digital environment.

FIGURE 11: Internal organizational barriers are often the biggest obstacle to digital maturity.

Employees in my organization mostly facilitate change or facilitate more than they inhibit.



A Disconnect in Leadership at Different Levels

We also observed a disconnect between the extent to which companies believe they are pushing leadership down compared with how much they may actually be doing that. While 59% of CEOs believe they are pushing decision-making down, only around 33% of vice president and director-level respondents report that it is happening. It's not clear whether executives think they are pushing decision rights down the organization but aren't executing or lower-level employees are not stepping up to take on those decision-making responsibilities.

Part of the reason for this disconnect may be that leaders are more comfortable talking about pushing decision-making down the organization than actually doing it. Julian Birkinshaw, professor of strategy and entrepreneurship at London Business School, studied how ING Bank in the Netherlands adopted agile organizational methods.⁸ He notes that a key factor in determining agility is the degree to which top executives are willing to give up a certain amount of control. Organizational leaders cannot abdicate leadership responsibilities, but neither can you have the same degree of control as before and be able to sense and respond as quickly as necessary in a digital environment. He says that it "shifts power away from those at the top and puts ownership in the hands of those closest to the action. That is a difficult shift for executives at established companies."

Yet, it also may be that employees are reluctant to step up, particularly in established companies. When we asked whether leaders, managers, or employees were more likely to facilitate or inhibit change in organizations, we were somewhat surprised that respondents said employees were more likely to inhibit change, particularly employees at older companies. While 55% of respondents in companies younger than 10 years say employees facilitate change, only 35% of respondents at companies older than 50 years say the same. (See Figure 11.) This is consistent with our findings in previous years, indicating that internal organizational barriers are often the biggest obstacle to digital maturity. So, it's not just about or-

ganizations pushing leadership down, but it is also about employees stepping up to accept the greater responsibility required of them in digital business.

Coming of Age: Extending Your Legacy Into the Digital World

Although established companies are increasingly stepping up to "come of age" in a digital world, they also have some distinct challenges compared with younger companies. As noted earlier, our data shows that most older companies are generally less digitally mature, meaning they are more likely to be in the early stages and less likely in the maturing stages. How do you respond if you are at an established company that needs to transform digitally? After all, you can't make your organization younger — or can you?

In fact, Sutton notes in a follow-up conversation that John Hancock was making that very progress: "During each session at the South by Southwest technology conference, I found myself nodding my head thinking, 'Yes, we're doing that,' while other attendees were nodding their heads realizing, 'Man, we should be doing that.' Talk about feeling proud." Old companies can, indeed, learn new tricks.

Learning, however, is a competency that needs to be practiced and cultivated for it to be effective and long lasting. In the same way, established organizations can — and need to — learn to become more

digital. Sometimes learning requires “unlearning” in order to break free from competency traps and old models that constrain thinking and new learning.⁹

Figuring out how to reshape the organization in order to operate in a competitive environment increasingly defined by digital technologies is essential for extending your organization’s legacy into the coming years. How can you go about doing so, and what do leaders need to do to help bring it about?

Assess your existing digital maturity. Before your company can become more digitally mature, it is important to understand how mature it already is. Although we speak about digital maturity as an organization-level construct, in reality, it is typically unevenly distributed throughout the organization. For example, marketing may be relatively mature, while certain operational functions may be less so, or vice versa. Assembling organizational leaders to assess the state of the organization or, better yet, surveying employees about their perception of your digital maturity is a good place to start.

Create pockets of fresh thinking and innovation. To overcome competency traps, one key is to find and develop pockets of fresh thinking and innovation and support them so that their practices spread through the organization. This means that senior leaders, those in the organization who are committed to digital investment and transformation, and the leaders of innovation pockets need to cultivate the conditions for experimentation, risk-taking, and collaboration. Although it will be critical to ensure that these pockets are spread throughout the organization, it is also important to protect them initially to allow them to become established. They should consist of cross-functional teams that think about meaningful ways to improve the way the business works, and they should be comprised of volunteers or employees who are positively disposed toward digital changes.

Experiment and learn. In these pockets of digital innovation, begin to experiment with new ways of doing business. These groups should not be moon shots of digital transformation but rather iterate on a minimum number of viable changes as part of six- to

eight-week initiatives. Focus on the areas your digital maturity assessment indicates might bring the greatest gains. You may find digital maturity is improved most by addressing the areas of least maturity that are creating bottlenecks for others. Be sure to debrief both successes and failures so that you and the organization learn why an effort succeeded or failed.

Use successes to drive change across the organization. The risk of an experimental mindset is that many companies stop there. They think that experimenting with digital business will make them more mature, but that’s only if the teams and the experimental mindset can be driven through the rest of the organization. They should come back to influence the core business, which is key for becoming more digitally mature. Once these groups see modest successes, they begin to share success stories across the organization and find new groups to take up the innovation cause.

Repeat. Digital experimentation should not be a “once and done” effort. Rather, it is about developing a culture of experimentation in which new business ideas are continually tried and tested. Build and iterate on the successes and learn from the failures. Again, digital disruption is really about many little disruptions that occur over time. Only by developing a culture of continual experimentation — experimenting with new approaches while also supporting the core business — can established organizations keep up with the changes that have happened and are still to come with respect to digital business.

Conclusion

For the first time in our four-year research project, we see a significant increase across companies with respect to digital maturity. Yet, we also find that significant obstacles may lie in wait for companies seeking to make the changes necessary to adapt their organization to a digital world. We’ve outlined some practical steps for improving organizational and individual learning and leadership — experimentation and iteration, continual learning, developing new leadership traits, and pushing decision-making down the organization. These practical steps should

not obscure the key overarching feature: the need for a change in mindset around learning and leading. Digital business moves more quickly, requires new levels of collaboration across various boundaries, and involves considerable ambiguity and constant change. Perhaps the biggest, necessary change is the need to begin thinking of business differently as a result of the new organizational capabilities enabled by emerging digital technologies. Only then can you begin to put those thoughts into action and begin the first step toward meaningful digital transformation.

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REFERENCES

1. Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a U.K. private company limited by guarantee (“DTTL”), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as “Deloitte Global”) does not provide services to clients. In the United States, Deloitte refers to one or more of the U.S. member firms of DTTL, their related entities that operate using the “Deloitte” name in the United States, and their respective affiliates. Certain services may not be available to attest clients under the rules and regulations of public accounting. Please see www.deloitte.com/about to learn more about our global network of member firms.
2. D. Agarwal, J. Bersini, G. Lahiri, J. Schwartz, and E. Volini, “The Workforce Ecosystem: Managing Beyond the Enterprise,” 2018 Global Human Capital Trends, Deloitte Insights, March 28, 2018, www2.deloitte.com; and G.C. Kane, D. Palmer, A.N. Phillips, and D. Kiron. “Winning the War for Digital Talent,” MIT Sloan Management Review 58, no. 2 (winter 2017): 17-19.
3. A. Huspeni, “Why Mark Zuckerberg Runs 10,000 Facebook Versions a Day,” Entrepreneur, May 24, 2017, www.entrepreneur.com.
4. J.G. March, “Exploration and Exploitation in Organizational Learning,” Organization Science 2, no. 1 (February 1991): 71-87.
5. C.A. O’Reilly III and M.L. Tushman, “The Ambidextrous Organization,” Harvard Business Review 82, no. 4 (April 2004): 74.
6. G.C. Kane, D. Palmer, A.N. Phillips, D. Kiron, and N. Buckley, “Achieving Digital Maturity,” MIT Sloan Management Review and Deloitte University Press, July 2017.
7. G.C. Kane and A.N. Phillips, “Cultivating a Culture of Cross-Functional Teaming and Learning at CarMax,” MIT Sloan Management Review, Aug. 11, 2017, www.sloanreview.mit.edu.
8. J. Birkinshaw, “What to Expect From Agile,” MIT Sloan Management Review 59, no. 2 (winter 2018): 39-42.
9. M. Bonchek, “Why the Problem With Learning Is Unlearning,” Harvard Business Review, Nov. 3, 2016, <https://hbr.org>.
- i. C.S. Dweck, “Mindset: The New Psychology of Success” (New York: Random House, 2006).

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Santa J. Ono, president and vice chancellor, University of British Columbia

Kelly Palmer, chief learning and talent officer, Degreed

Colin Schiller, president, Everwise Corp.

Janice Semper, culture transformation leader, General Electric Co.

Lindsay Sutton, assistant vice president and digital strategy lead, John Hancock Financial Services Inc.

Melissa Valentine, assistant professor, management science and engineering, Stanford University

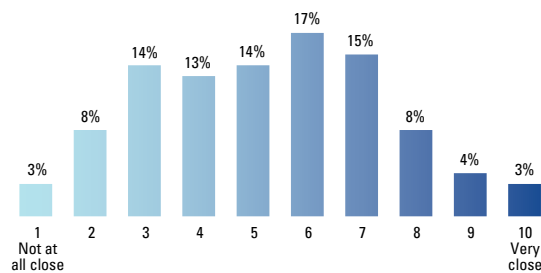
Ben Waber, president and CEO, Humanyze

George Westerman, principal research scientist, MIT Sloan Initiative on the Digital Economy

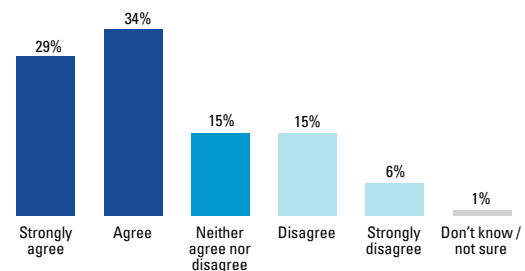
THE SURVEY: Questions and Responses

Results from the 2017 Digital Business Global Executive Survey

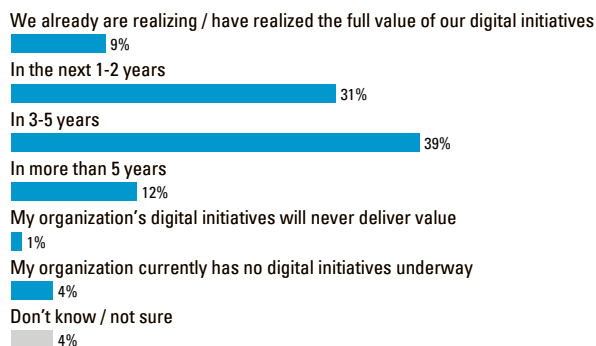
1. Imagine an ideal organization utilizing digital technologies and capabilities to improve processes, engage talent across the organization, and drive new and value-generating business models. How close is your organization to that ideal?



2. Please indicate the degree to which you agree or disagree with the following statement: Digital transformation is a top management priority at my organization.



3. When do you expect your organization will get the most value out of its digital initiatives? (Please select one.)

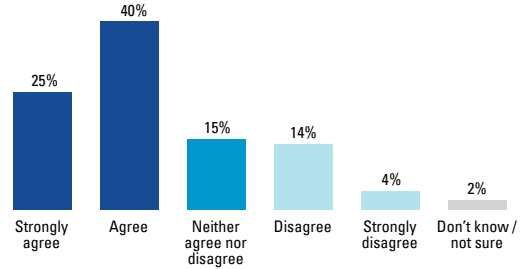


4. Which functional areas are primarily leading your organization's digital progress? (Rank order top three.)



Ranking is based on composite score, where a higher weight is assigned to higher rank and vice versa. Totals represent composite score.

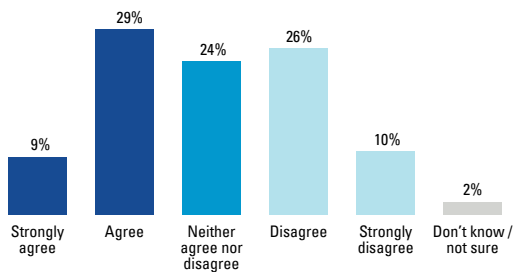
5. Please indicate the degree to which you agree or disagree with the following statement: Funding digital initiatives is a significant challenge that affects my organization's digital efforts.



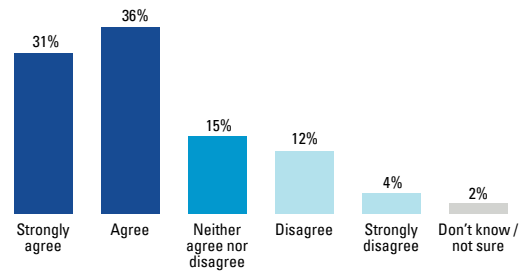
6. The purpose of my organization's digital initiatives is to:



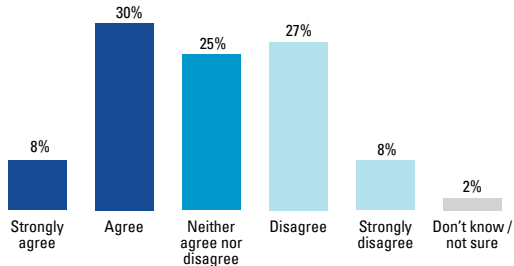
7. Please indicate the degree to which you agree or disagree with the following statement: My organization is increasingly pushing decision-making authority down into lower levels of the organization in order to better execute in a digital environment.



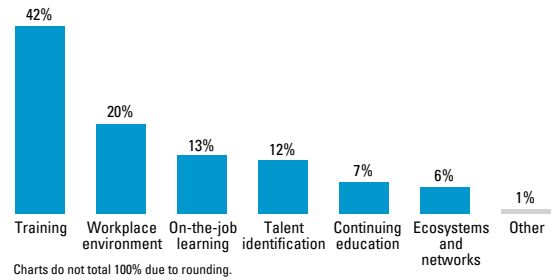
8. Please indicate the degree to which you agree or disagree with the following statement: My organization needs to find new leaders in order for the organization to succeed in the digital age.



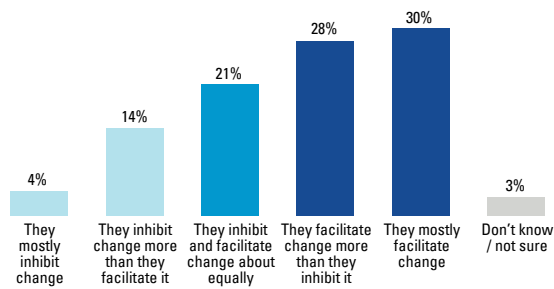
9. Please indicate the degree to which you agree or disagree with the following statement: My organization is effectively developing the types of leaders who have the capabilities necessary to lead the organization in a digital environment.



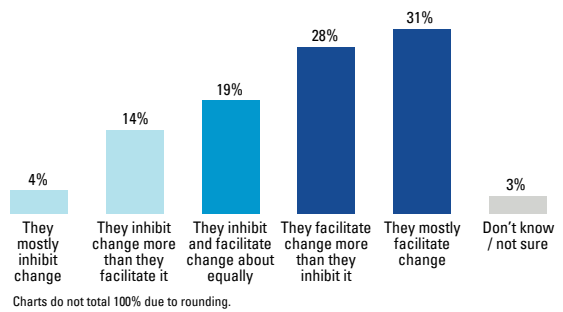
10. How is your organization developing leaders?



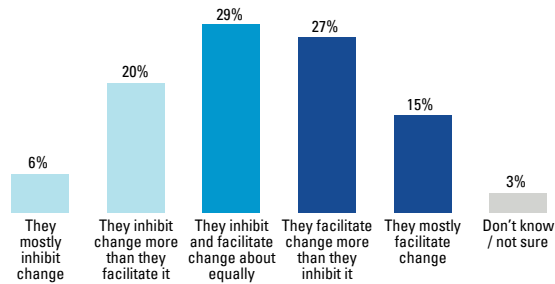
11. Which of the following best describes the orientation of your organization's leadership (e.g., CEO, C-suite) toward change within the organization?



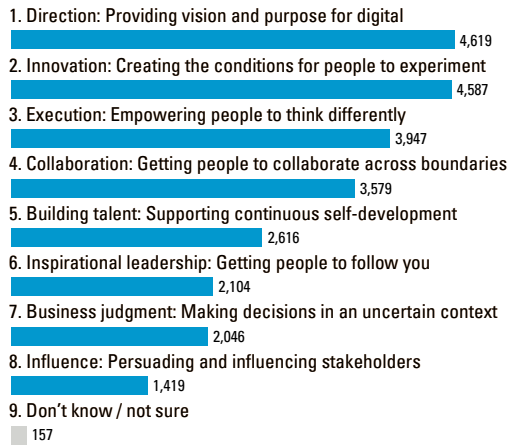
12. Which of the following best describes your manager's orientation toward change within the organization?



13. Which of the following best describes employees' orientation toward change within the organization?

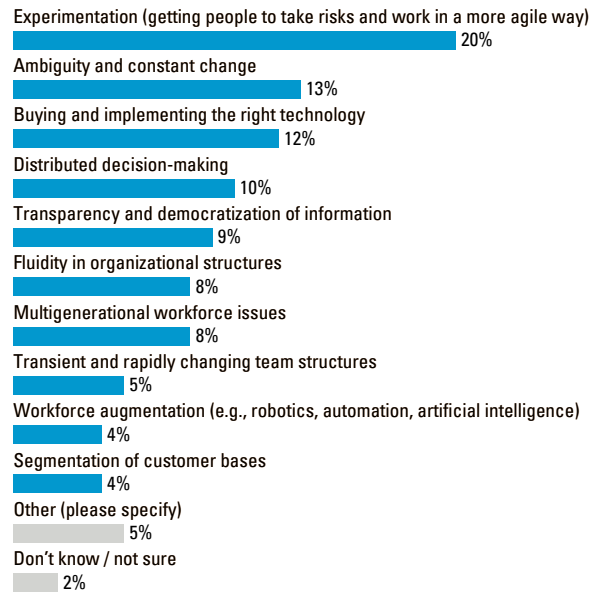


14. What would you like your leaders to have MORE of to help your organization navigate digital trends? (Rank order top 3.)

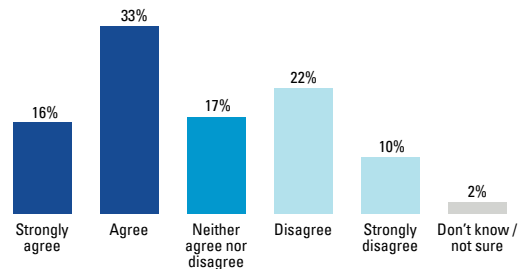


Ranking is based on a composite score, where a higher weight is assigned to a higher rank and vice versa. Totals represent the composite score.

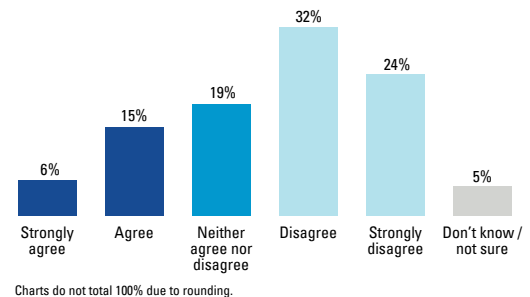
15. What is the biggest challenge impacting your organization's ability to compete more effectively in a digital environment? (Select one.)



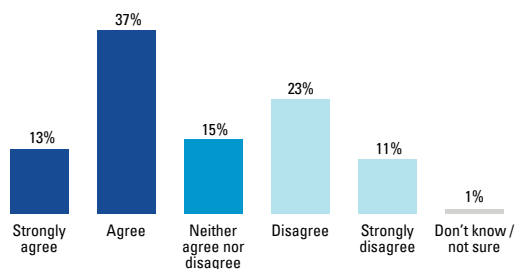
16. Please indicate the degree to which you agree or disagree with the following statement: My organization is actively seeking to use new data analytics (e.g., sociometric tools, artificial intelligence) to help employees and leadership improve employee performance.



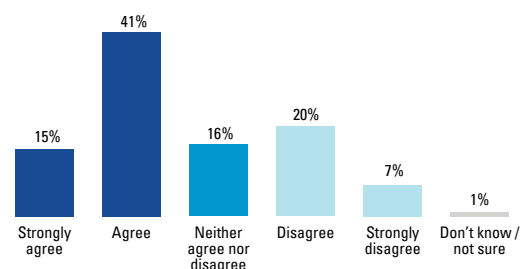
17. Please indicate the degree to which you agree or disagree with the following statement: My organization is locating offices in new geographic areas to get better access to digital talent.



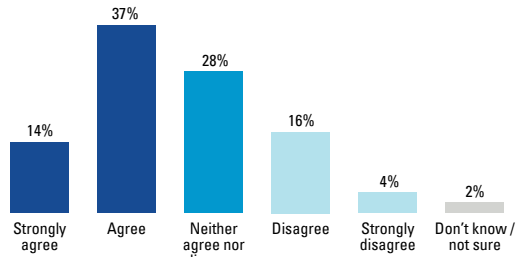
18. Please indicate the degree to which you agree or disagree with the following statement: My department is utilizing a different mix of employment types (e.g., part-timer, contractor, consultant, on-demand resources) in response to digital trends.



19. Please indicate the degree to which you agree or disagree with the following statement: My department or team is working or starting to work with advanced collaborative tools instead of email to facilitate better communication.

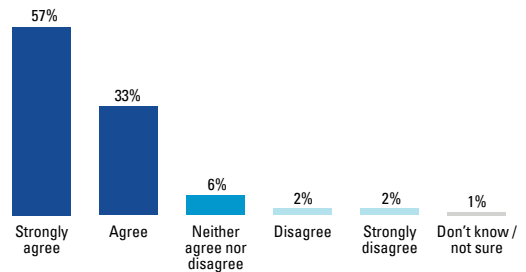


20. Please indicate the degree to which you agree or disagree with the following statement: My department or team uses technology to get work done more effectively than our organization does as a whole.



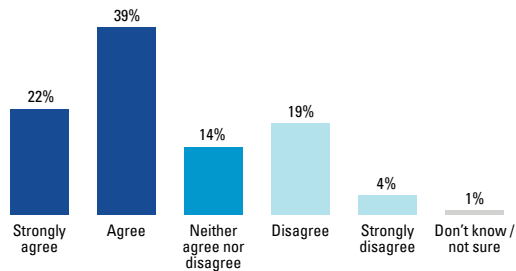
Charts do not total 100% due to rounding.

21. Please indicate the degree to which you agree or disagree with the following statement: I am interested in the opportunity to use new data analytics (e.g., sociometric tools, artificial intelligence) to help me improve my performance.



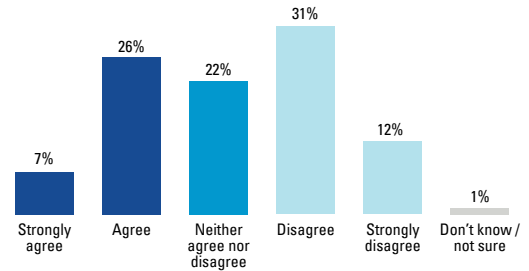
Charts do not total 100% due to rounding.

22. Please indicate the degree to which you agree or disagree with the following statement: I use digital technologies that are not provided or not supported by my organization to get my job done.



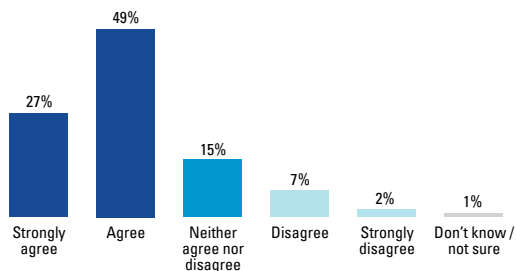
Charts do not total 100% due to rounding.

23. Please indicate the degree to which you agree or disagree with the following statement: I am satisfied with how my organization is helping me prepare for the changes necessary for working in a digital environment.



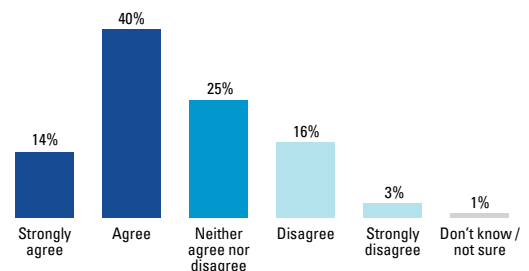
Charts do not total 100% due to rounding.

24. Please indicate the degree to which you agree or disagree with the following statement: Digital platforms have allowed me to enhance my professional profile *outside* my organization.



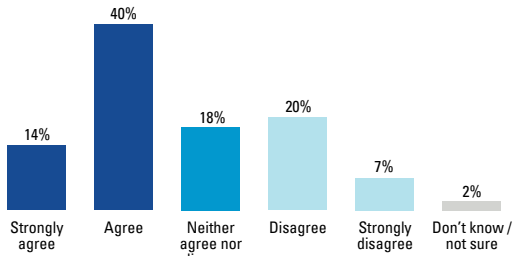
Charts do not total 100% due to rounding.

25. Please indicate the degree to which you agree or disagree with the following statement: Digital platforms have allowed me to enhance my professional profile *inside* my organization.



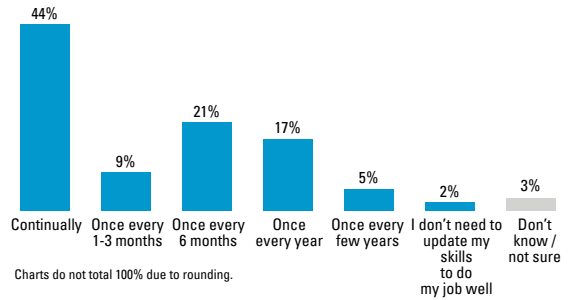
Charts do not total 100% due to rounding.

26. Please indicate the degree to which you agree with the following statement: Companies have approached me about intriguing job opportunities via digital platforms without me soliciting them.



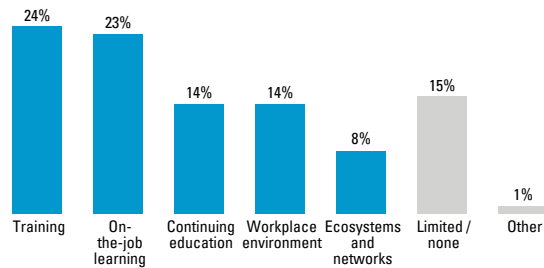
Charts do not total 100% due to rounding.

27. How often do you need to update your skills to do your job effectively in a digital environment?



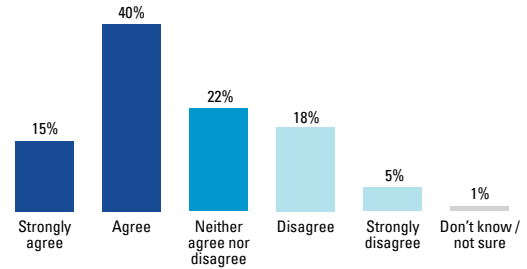
Charts do not total 100% due to rounding.

28. Please describe the most important opportunities your organization provides you to develop new skills for a digital environment.



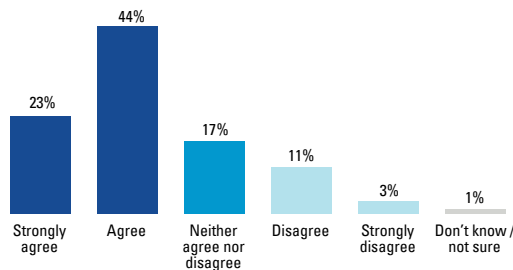
Charts do not total 100% due to rounding.

29. Please indicate the degree to which you agree with the following statement: My organization encourages new ideas to be shared and tested at all levels of the organization.



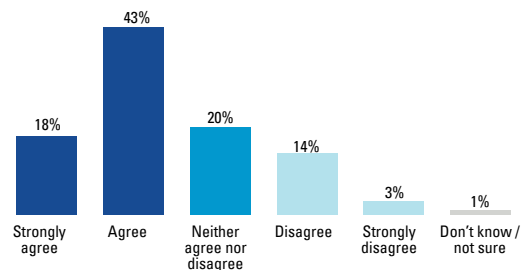
Charts do not total 100% due to rounding.

30a. Please indicate the degree to which you agree or disagree with the following statement: My organization is intentionally enhancing and increasing collaboration within my function.



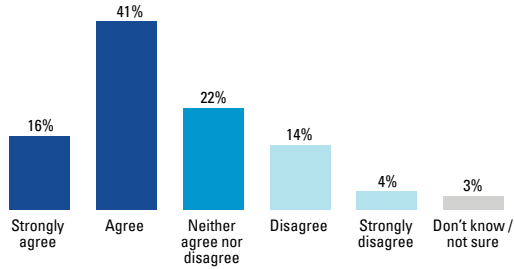
Charts do not total 100% due to rounding.

30b. Please indicate the degree to which you agree or disagree with the following statement: My organization is intentionally enhancing and increasing cross-functionally within my broader organization.



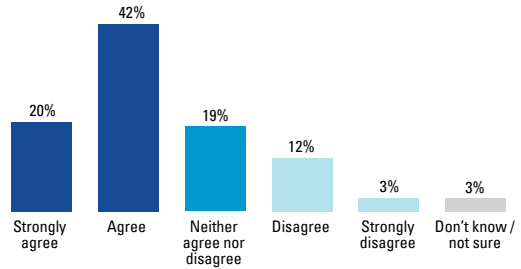
Charts do not total 100% due to rounding.

30c. Please indicate the degree to which you agree or disagree with the following statement: My organization is intentionally enhancing and increasing collaboration with business partners.



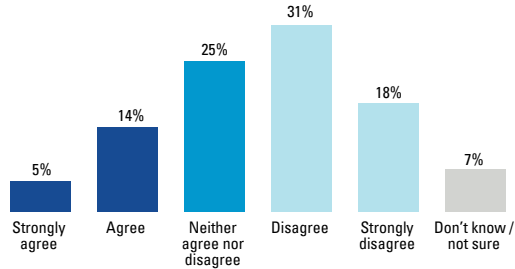
Charts do not total 100% due to rounding.

30d. Please indicate the degree to which you agree or disagree with the following statement: My organization is intentionally enhancing and increasing collaboration with customers.



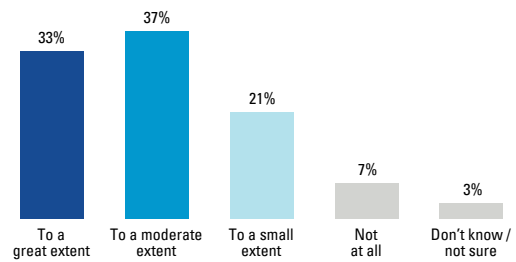
Charts do not total 100% due to rounding.

30e. Please indicate the degree to which you agree or disagree with the following statement: My organization is intentionally enhancing and increasing collaboration with competitors.



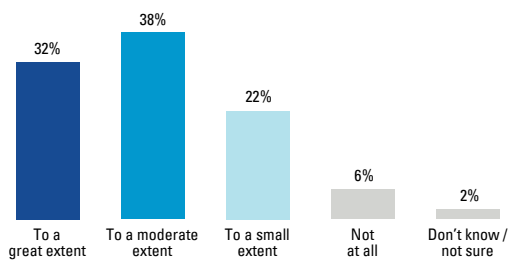
Charts do not total 100% due to rounding.

31a. To what extent, if at all, does the nature of work in a digital environment drive collaboration in your organization?

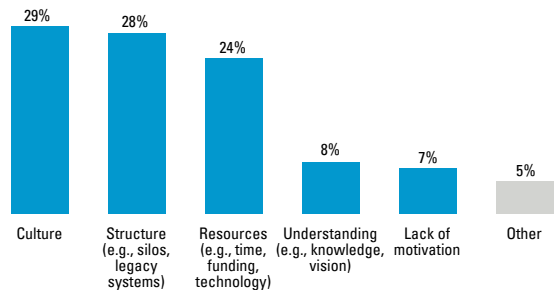


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31b. To what extent, if at all, does the availability of new tools and technologies drive collaboration in your organization?



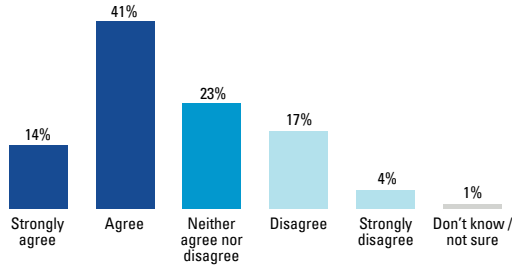
32. What is the biggest challenge your organization faces with respect to collaborating effectively?



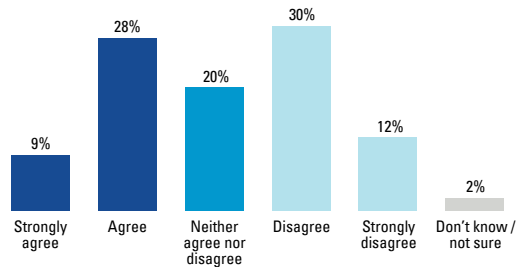
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33. Please indicate the degree to which you agree or disagree with the following statement: My organization encourages feedback and iteration to learn how to work in new ways.

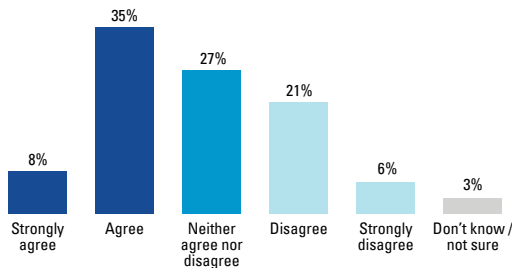


34. Please indicate the degree to which you agree or disagree with the following statement: Leaders in my organization share results from failed experiments in constructive ways that increase organizational learning.

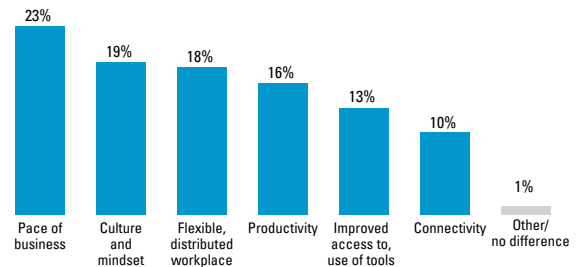


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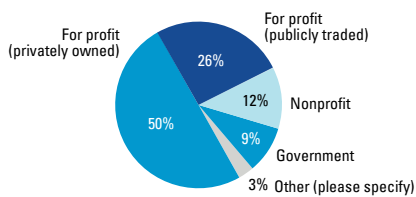
35. Please indicate the degree to which you agree or disagree with the following statement: My organization scales successful initiatives to drive digital transformation across the organization.



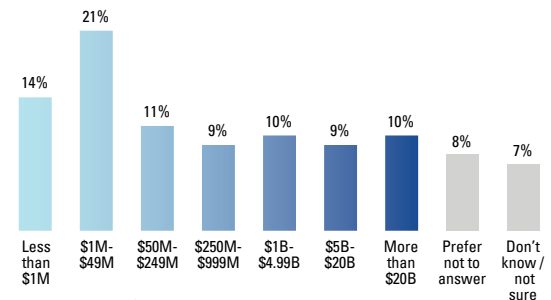
36. What is the biggest difference between working in a digital business environment versus a traditional one?



37. What best describes your organization's ownership structure?

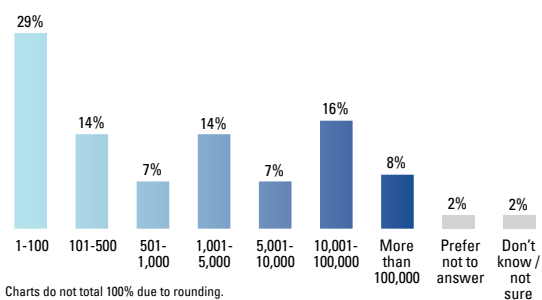


38. What were the revenues of your parent organization in its last fiscal year (in U.S. dollars)?



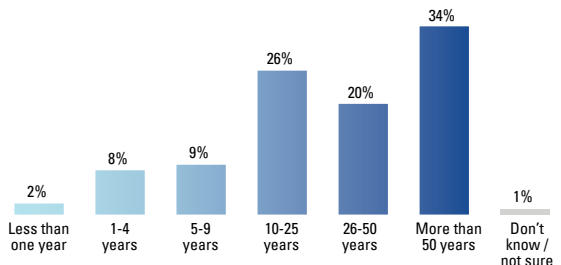
Charts do not total 100% due to rounding.

39. What is your organization's total employee head count?

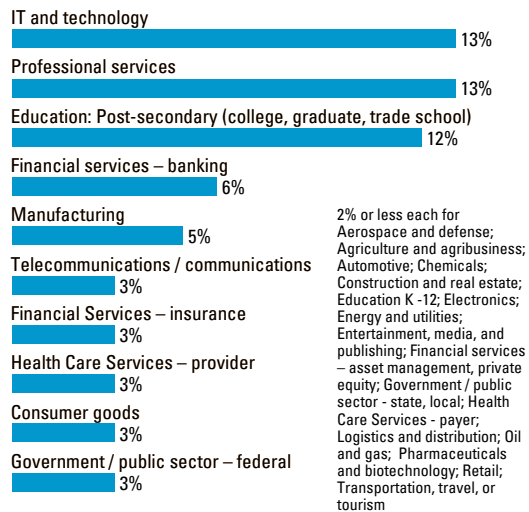


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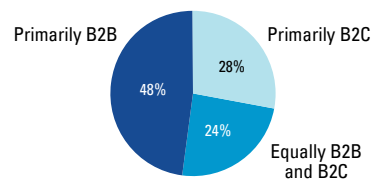
40. How old is your organization?



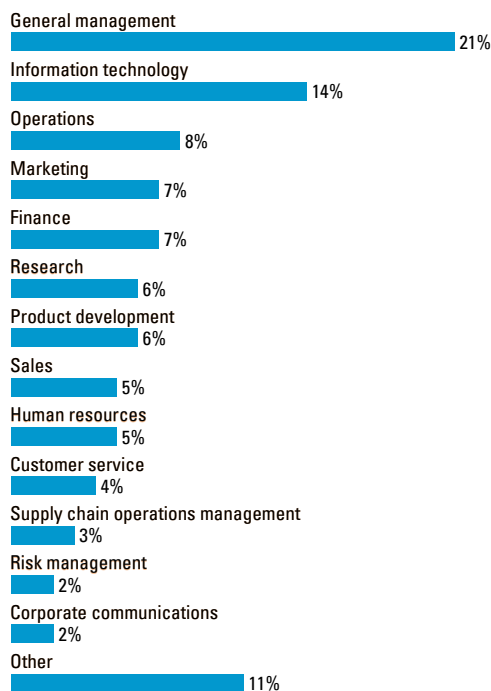
41. Which best describes your organization's primary industry?



42. Is your organization business to business (B2B) or business to consumer (B2C)?

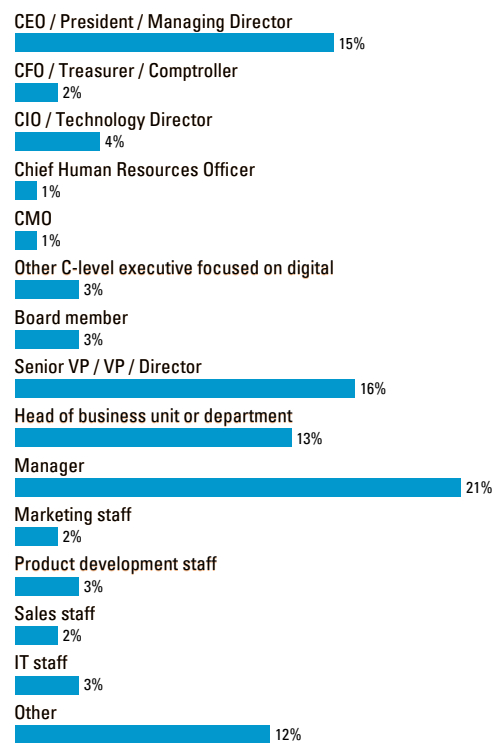


43. Which of the following best describes your primary functional affiliation?



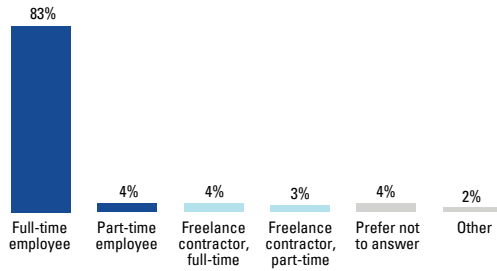
Charts do not total 100% due to rounding.

44. Which of the following best describes your role?

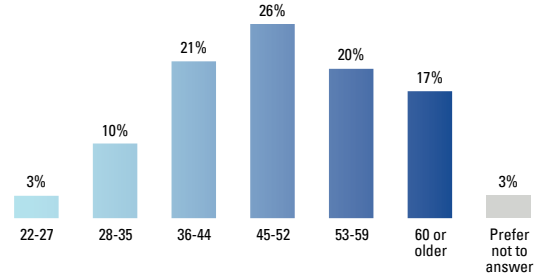


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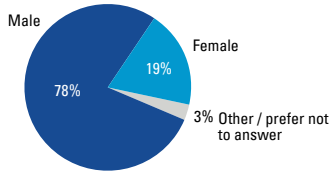
45. How are you employed at this organization?



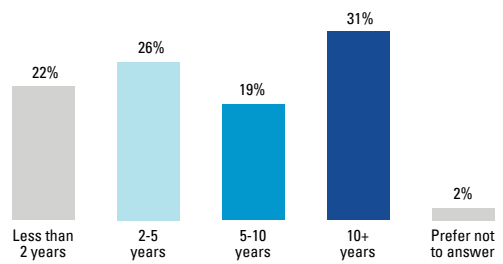
46. What is your age?



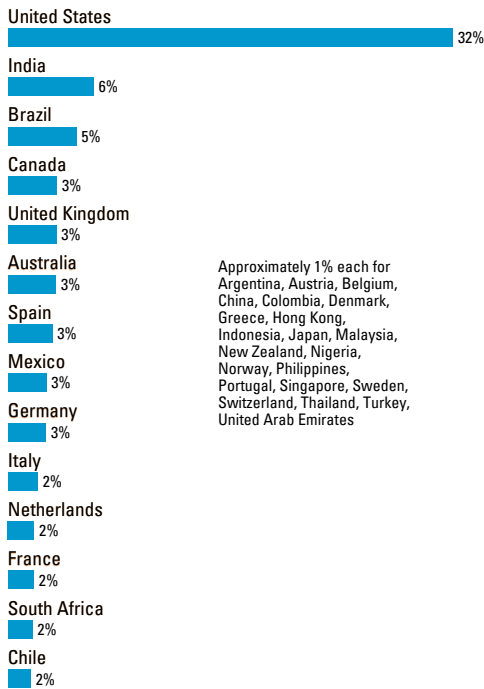
47. What is your gender?



48. How long have you worked at your organization?



49. In which country do you primarily work?



Approximately 1% each for Argentina, Austria, Belgium, China, Colombia, Denmark, Greece, Hong Kong, Indonesia, Japan, Malaysia, New Zealand, Nigeria, Norway, Philippines, Portugal, Singapore, Sweden, Switzerland, Thailand, Turkey, United Arab Emirates

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