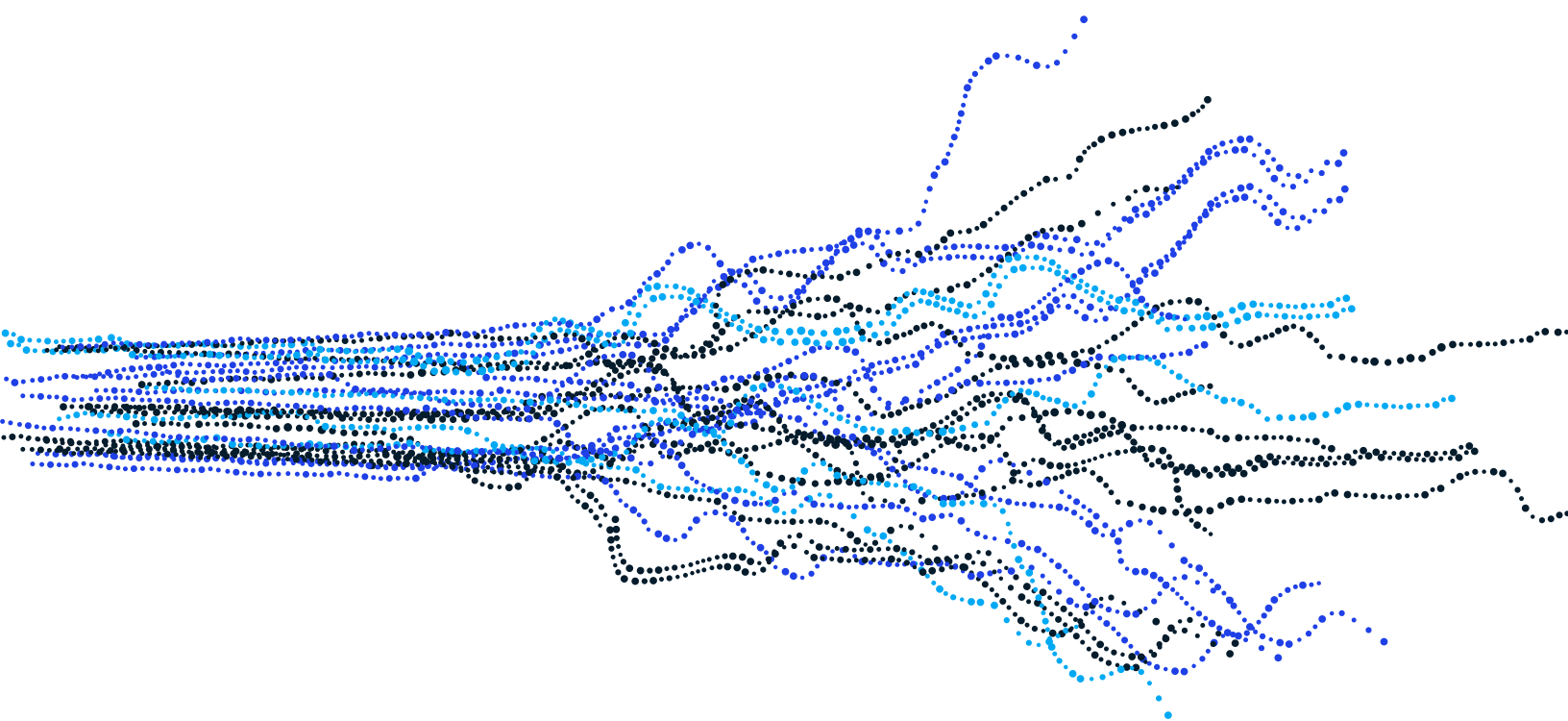


Managing the fallout from technology transformations

Companies may be postponing further evolution of their technology organizations, a survey finds. Yet they should take heart: investing in these changes will likely pay off—and may be nothing short of essential to their competitiveness in the future.



Companies are improving business performance as a result of technology-transformation efforts and largely see advanced technologies and strong IT performance as both competitive differentiators and drivers of growth. However, they may be pausing to digest what they have accomplished before undertaking further large-scale evolution of their technology organizations.

According to the results of the latest McKinsey Global Survey on the topic,¹ nearly all respondents' organizations—99 percent—have pursued a large-scale technology transformation in the past two years.² While doing so, many have experienced cultural and talent gaps and weak partnerships between IT and the rest of the business. Overcoming these issues will require companies to reskill people, reboot culture, forge closer IT-business relationships, and rigorously measure IT's value. To help their companies succeed, executives might learn from companies with technology organiza-

tions that perform in the top quartile on core technology tasks,³ where respondents say they have done well at meeting these challenges.

A strong technology organization is widely seen as a competitive edge and a growth engine

For many years, our research on business technology has shown that technology organizations often fall short of executives' expectations. They have underperformed on core activities.⁴ Many managers outside IT have seen their technology counterparts as replaceable or as merely a cost center, and IT leaders have struggled to secure a seat in strategy discussions.⁵ But now, respondents' three-year outlook on the value of their technology organizations is more positive. A majority (54 percent) of respondents in IT and other functions say their technology organizations' performance will significantly or completely differentiate

A majority (54 percent) of respondents say their technology organizations' performance will significantly or completely differentiate their overall business from that of competitors.

¹ The online survey was in the field from February 12 to February 22, 2019, and garnered responses from 549 participants. Of these, 318 have a technology focus, and the remaining 231 are C-level executives representing other functions. The participants represent the full range of regions, industries, company sizes, and tenures. To adjust for differences in response rates, the data are weighted by the contribution of each respondent's nation to global GDP.

² We define technology transformations as any large-scale transformations to core technology and the business, and digital transformations more specifically as efforts to enable new or existing business models by integrating advanced technologies (for example, digitizing end-to-end business processes or customer journeys across the organization).

³ We define a top-quartile core technology organization as one where respondents report an average effectiveness score in the top 25 percent of the sample, based on the ratings of 12 key IT activities that were tested in the survey. For each activity, respondents were asked to rate their technology organizations as very ineffective, somewhat ineffective, somewhat effective, or very effective; the other answer choices were "neutral," "don't know," or that their technology organizations aren't involved in that activity. Of the 12, respondents most often report effectiveness at leading IT delivery and operations (62 percent) and transforming the technology organization (55 percent); they least often report effectiveness at evaluating IT's performance so the whole organization is aware of its work and impact (43 percent), leading design of e-commerce and online experience (45 percent), and developing analytics use cases for insight generation (45 percent).

⁴ "Can IT rise to the digital challenge?," October 2018, McKinsey.com.

⁵ "IT's future value proposition," July 2017, McKinsey.com; Pedja Arandjelovic, Libby Bulin, and Naufal Khan, "Why CIOs should be business-strategy partners," February 2015, McKinsey.com.

their overall business from that of competitors (Exhibit 1). A similar share say the same of their companies' use of IT. At companies with the best-performing technology organizations on core IT tasks, respondents are even more likely to describe their technology organizations and their use of technology as competitive advantages.

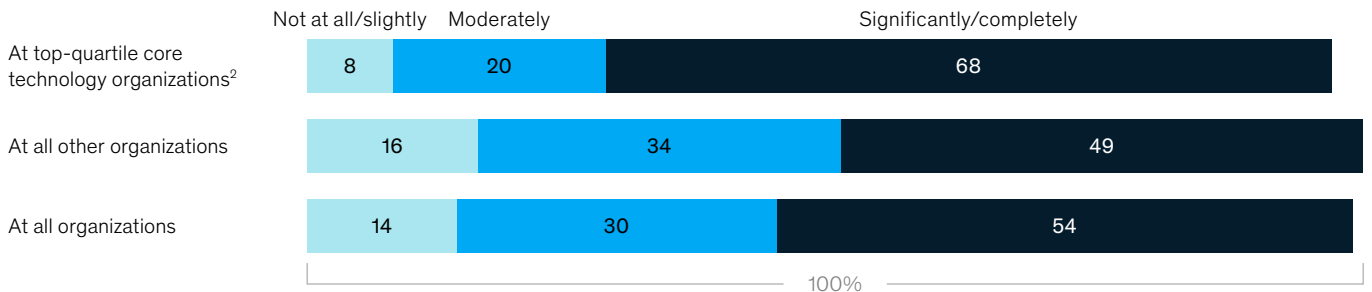
What's more, 65 percent of respondents expect that their companies' use of technology is most likely to support revenue growth, rather than cost reduction, over the next three years. One-quarter

of respondents say that increased revenue from new customers will be the primary outcome of their technology use in the next few years, and roughly one-fifth of other respondents expect technology to increase engagement with current customers (21 percent) or to increase revenue from new products or business models (19 percent). Another 21 percent of respondents say reduced costs through automation and digitization will be the most likely outcome of their companies' technology use, though respondents at companies with top-quartile technology organizations are half as likely as others to make this prediction.

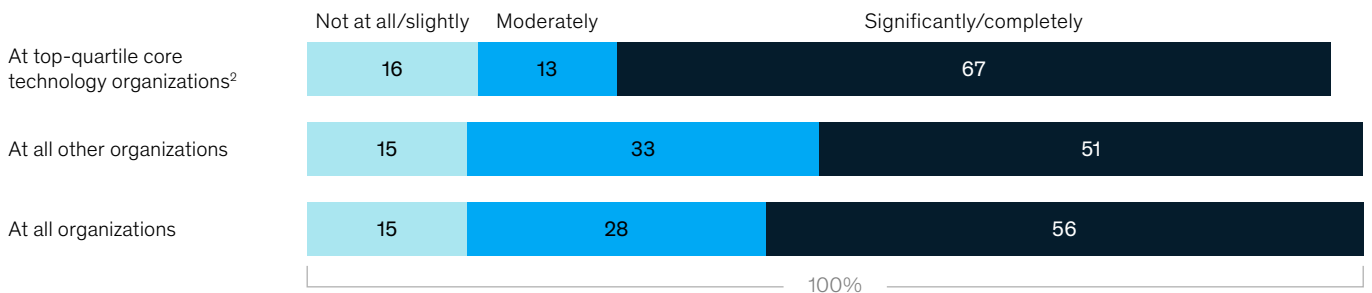
Exhibit 1

Most respondents—especially those with top-quartile technology organizations—expect IT performance and use of technology to be competitive advantages.

Extent to which technology organizations' performance will differentiate companies' overall business from that of competitors over the next 3 years, % of respondents¹



Extent to which use of technology will differentiate companies' overall business from that of competitors over the next 3 years, % of respondents¹



¹Figures do not sum to 100%, because respondents who said "don't know" are not shown; total n = 549.

²Respondents who reported an average effectiveness score in top 25% of sample, based on ratings of 12 key IT activities that were tested in the survey; n = 142.

Companies continue to invest in technology transformations and see performance improvements from them

Amid these expectations, most respondents say that their companies are making significant investments in increasing revenue through the use of technology—and that they continue to update their core technology and the way the technology organization operates. Consistent with our past two surveys,⁶ more than half of respondents say their organizations have pursued IT-infrastructure modernization and operating-model changes in recent years. Responses also indicate progress on bringing together digital and traditional IT teams.⁷ One-third—up from 18 percent in the prior survey—report a common operating model for these teams, meaning one that is digitally integrated⁸ or fully digital.

Among respondents reporting digital transformations at their companies, nearly two-thirds say these change efforts have improved their overall performance, a similar share as in 2017. Further, roughly half say these efforts have succeeded at improving performance *and* at sustaining these improvements. These investments are also facilitating companies' broader digital initiatives. Compared with the previous survey, much smaller shares of respondents

now say that it has been difficult to integrate digital technologies with core technology (the most commonly cited digital-transformation-related challenge in the previous survey) or that newer ways of working have made it harder to manage funding and demand during their transformations.

The top-quartile technology organizations have made even more progress. As in the previous survey, respondents at these companies are more likely than others to say they have digitized their business processes and transformed how they operate. They are also more than twice as likely (66 percent, up from 29 percent in 2017) to report an integrated or fully digital operating model at their companies. Other respondents, by contrast, report strong but smaller gains: they are 61 percent more likely now than in the last survey (21 percent, up from 12 percent) to report an integrated or fully digital operating model for technology.

Interest in new operating models may be tempered by persistent transformation challenges

Although companies have made progress in transforming IT and upgrading core technologies, our latest survey suggests that some are

Among respondents reporting digital transformations at their companies, nearly two-thirds say these change efforts have improved their overall performance.

⁶ "Can IT rise to the digital challenge?," October 2018, McKinsey.com.

⁷ The survey question was asked only of respondents who said their organizations had pursued digitization in the past two years. For more on operating models for technology, see Naufal Khan, Gautam Lunawat, and Amit Rahul, "Toward an integrated technology operating model," October 2017, McKinsey.com.

⁸ We define "digitally integrated" to mean technology is delivered at scale by both digital and core IT teams that work under a single operating model.

reconsidering the need to evolve their technology operating models further. When asked about the target state for how technology is delivered, respondents are 27 percent less likely than before to say they are working toward a digitally integrated or fully digital model. As was true in the previous survey, top-quartile respondents remain more likely than others to cite an integrated or fully digital operating model as their organizations' target state (Exhibit 2).

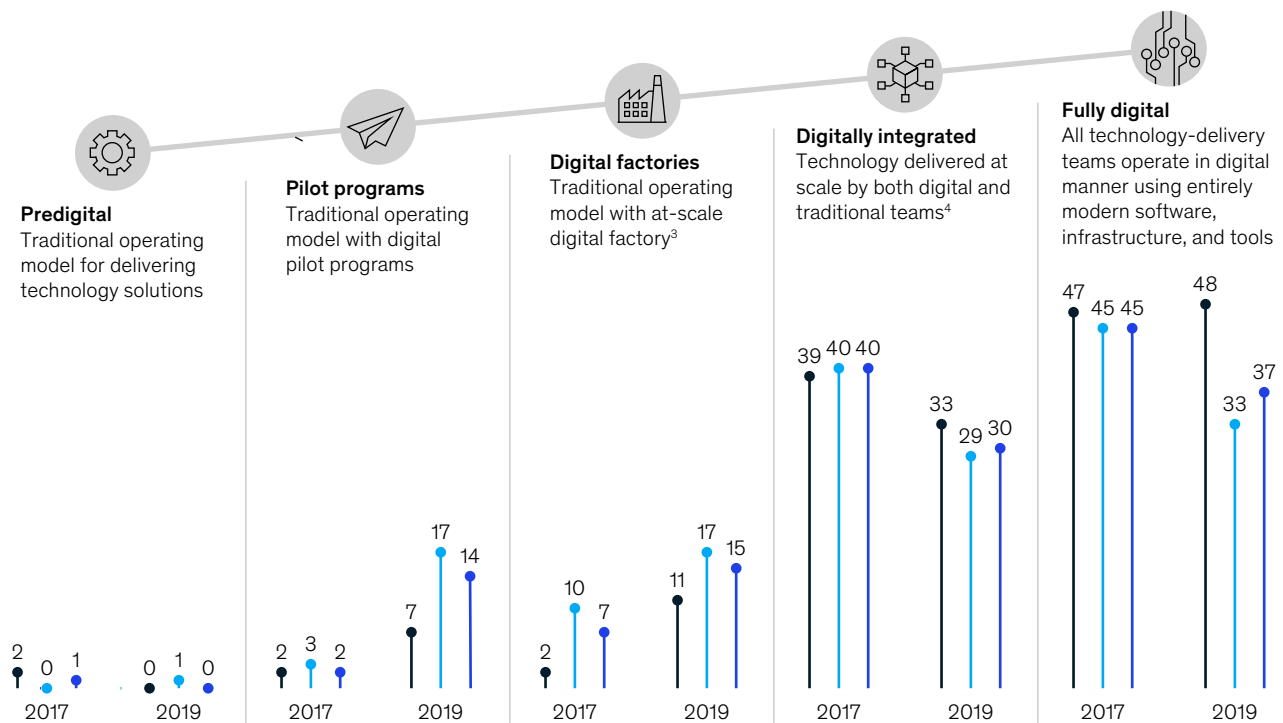
This reset of expectations coincides with emerging issues that respondents whose organizations undertook digital transformations cite as pain points in their experiences thus far. Chief among these are talent and culture. In the newest survey, when respondents identify the challenges resulting from their digital transformations, they most often cite the skill gaps that have opened on traditional IT teams when top talent moves to digital product teams (Exhibit 3). The second-most-

Exhibit 2

Respondents are less likely than in the previous survey to say they are working toward a digitally integrated or fully digital operating model.

Target state of technology operating model, % of respondents¹

● At top-quartile core technology organizations² ● At all other organizations ● At all organizations



¹ Question was asked only of respondents who said their organizations had pursued digitization in past 2 years, and those who answered "don't know" are not shown. In 2017, n = 274; in 2019, n = 283.

² Respondents who reported an average effectiveness score in top 25% of sample, based on ratings of 12 key IT activities that were tested in the survey. In 2017, n = 100; in 2019, n = 89.

³ That is, a group of delivery teams is dedicated to building digital products and is largely separate from the traditional technology organization.

⁴ Teams are not siloed or incubated and are governed by a single operating model.

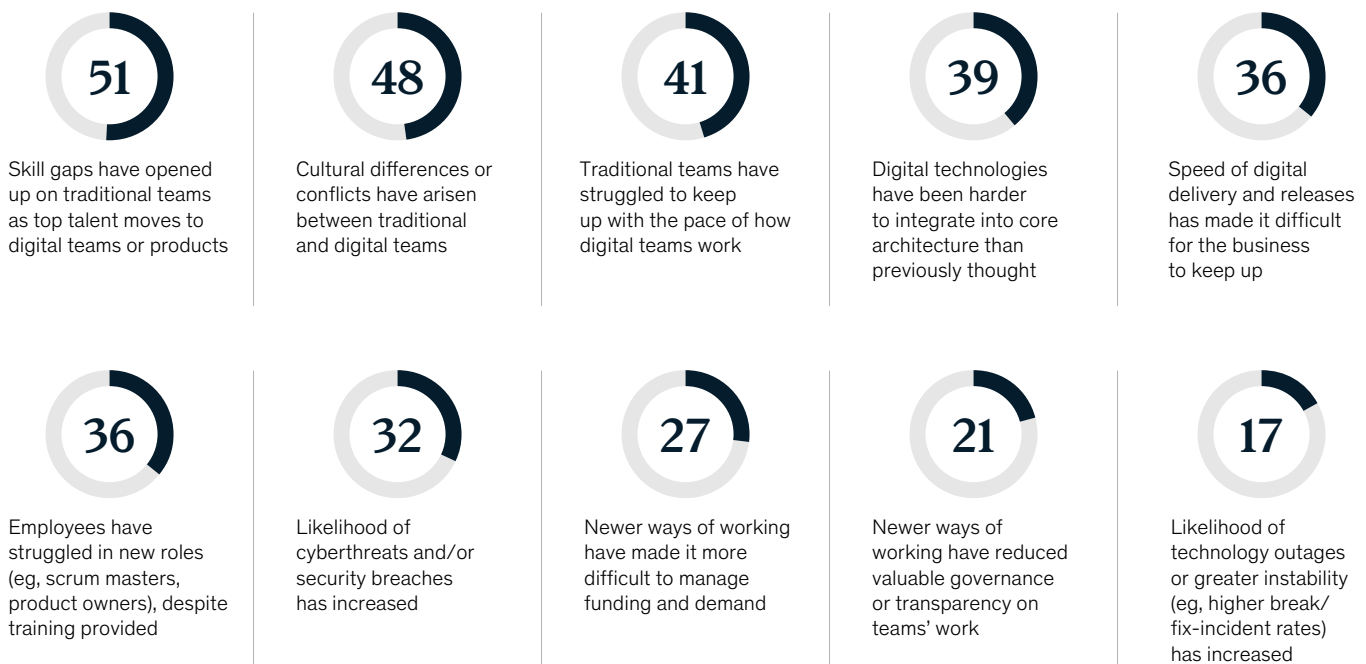
cited challenge is cultural differences between traditional IT and digital teams. Overall, respondents say that to close the gap between current and future skill needs, their companies will have to replace or fundamentally retrain more than one-third of their IT employees over the next three years. Our survey has cited the growing talent challenge for several years,⁹ but few companies have taken significant steps to address it: just 22 percent of respondents say their technology organizations have transformed their talent strategies.

In addition, there are signs of weak IT–business partnerships. Fewer than half of IT respondents say they have a strong partnership with their business counterparts. Further, there is a 26-percentage-point gap between CIOs or CTOs and their C-level peers in their views of IT’s ability to measure its impact on the business effectively. Sixty-two percent of CIOs and CTOs say their technology organizations effectively evaluate the function’s performance, while 36 percent of other executives say the same.

Exhibit 3

The most-cited obstacles encountered in digital transformations are talent and culture issues.

Challenges encountered as a result of digital transformations, % of respondents¹



¹ Question was asked only of respondents who said their organizations had pursued digitization in past 2 years. Respondents who said "none of the above" or "don't know" are not shown; total n = 283.

⁹ "Can IT rise to the digital challenge?," October 2018, McKinsey.com; "IT's future value proposition," July 2017, McKinsey.com; "Partnering to shape the future—IT's new imperative," May 2016, McKinsey.com; Pedja Arandjelovic, Libby Bulin, and Naufal Khan, "Why CIOs should be business-strategy partners," February 2015, McKinsey.com.

Top technology organizations are meeting their transformation challenges

For ideas about how to overcome the organizational challenges that companies are facing during their technology-transformation efforts, executives might look at what the best-performing technology organizations do differently. One distinction is their approach to people—unsurprising, perhaps, given the aforementioned challenges with talent and culture. While talent transformations are the least common type of IT change effort we asked about, respondents at top-quartile companies are far likelier to say they've pursued one: 33 percent of these respondents report undertaking a talent transformation, compared with 19 percent of all others. They also say a smaller share of IT employees will need to be replaced or retrained in the next three years (25 percent of employees, compared with 39 percent among respondents at other organizations), and they are less likely to say

employees have struggled in their new, post-transformation roles.

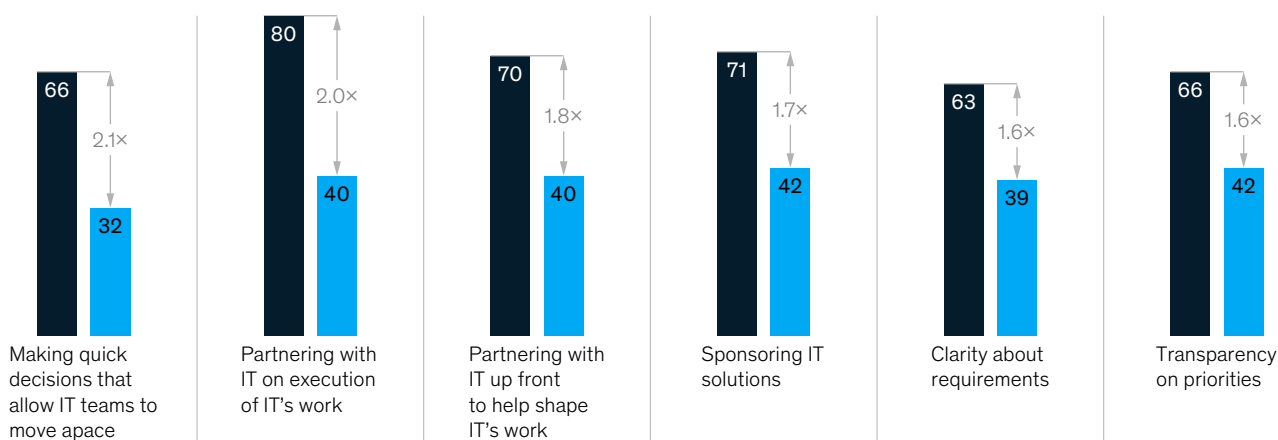
Another matter that top-quartile organizations seem to be getting right is IT's partnership with the business. Previous survey findings have underscored the benefits of strong IT–business partnerships. But they also highlighted common shortcomings that keep the function from becoming an active partner with the rest of the business—particularly, IT's operating model and a lack of clarity about IT's priorities and role.¹⁰ In the latest survey, about half of IT respondents say their business colleagues support IT effectively on various dimensions of their work. But those at the best-performing technology organizations say so much more often. For example, they are two times more likely than other respondents to say their business colleagues partner effectively with IT on the execution of its work (Exhibit 4).

Exhibit 4

IT respondents at top-quartile organizations are more likely than those elsewhere to say their business colleagues support IT in various ways.

Share of respondents saying business side of organization effectively supports IT on given dimension, % of respondents¹

■ At top-quartile core technology organizations ■ At all other organizations



¹ Question was asked only of respondents in IT function. Respondents who answered "very ineffective," "somewhat ineffective," "neutral," or "don't know/not applicable" are not shown. For respondents at top-quartile core technology organizations, total n = 86; for all other respondents, total n = 232.

¹⁰ "Partnering to shape the future—IT's new imperative," May 2016, McKinsey.com.

When asked which governance practices most help these IT–business partnerships maximize the value of technology investments, respondents most often identify presenting a strong business case, cited by 36 percent of respondents and 47 percent of top-quartile respondents. Top-quartile respondents are also much likelier than others to say the business and IT team up on strategy development. Forty percent of top-quartile respondents, but only 17 percent of others, say their companies' IT strategies are jointly set by business and IT as part of the larger business strategy and revisited regularly.

Finally, the top-quartile technology organizations measure their overall performance and contribution to business value far more thoroughly than their peers do. The survey asked how companies mea-

sure their performance on nine key IT outcomes. On average, 58 percent of top-quartile IT respondents say their companies produce metrics either in great detail or with cutting-edge analytics and discuss and share these metrics broadly. Just 26 percent of all other IT respondents say the same. Overall, IT respondents say their performance metrics focus on IT operations and costs, such as cost of technology delivery and system stability, and place less emphasis on digital enablement, revenue potential, and value to the business.

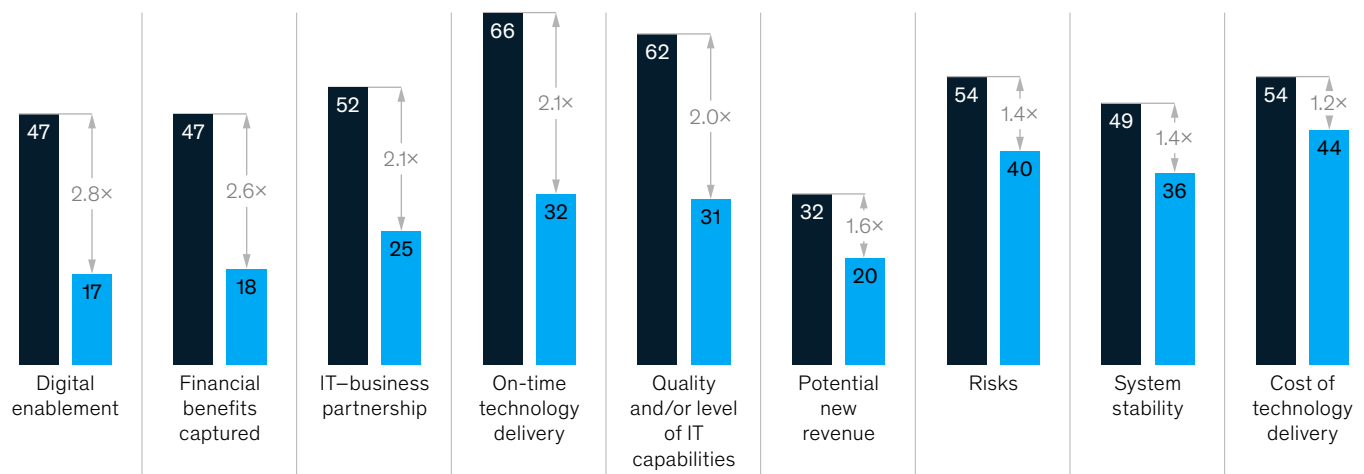
The best-performing technology organizations are furthest ahead on measuring digital enablement, the financial benefits captured from IT, and the quality of partnership between business and IT (Exhibit 5). On the business side, non-IT executives at top-quartile companies are more aware than

Exhibit 5

The best-performing technology organizations are furthest ahead on measuring digital enablement, financial benefits captured, and IT–business partnership.

Share of IT respondents reporting that given metric is produced with cutting-edge analytics and actively shared with organization, or produced in great detail and discussed frequently, %¹

■ At top-quartile core technology organizations ■ At all other organizations



¹ Question was asked only of respondents in IT function. Respondents who said "produced regularly and available if needed," "produced on an ad hoc basis and shared informally," "not applicable; we do not use any metrics for this outcome," and "don't know" are not shown. For respondents at top-quartile core technology organizations, total n = 86; for all other respondents, total n = 232.

others are of their technology organizations' performance on these outcomes. Overall, business respondents from companies with top-performing technology organizations are much more likely than their peers at other companies to say they are very aware of these IT outcomes, based on quantifiable metrics.

Looking ahead

As companies look to advance their technology transformations, they can learn from how high-performing technology organizations address three key challenges:

- *Manage talent and culture modernization with the same rigor as technology modernization.* Talent- and culture-related issues stand out as top challenges for digitizing organizations, and the findings highlight a critical need for retraining. But few technology organizations undertake talent transformations. To begin, they should take inventory of the skills employees possess and compare the results with the technology skills the company will need to attain its goals. Understanding the gaps can help executives direct talent-development efforts to where they will be most useful.
- *Strengthen the IT–business partnership with collaborative processes and structures.* A digital transformation presents opportunities to

establish processes for delivering business value (for example, iterative funding, up-front business cases, and preproject tech diligence), not just code. Creating and applying these processes together with business partners can help promote ongoing collaboration. Companies can increase alignment between the technology organization and the rest of the business not only by including the CIO in strategy discussions but also by bringing employees from IT and other business functions together on cross-functional teams that are jointly responsible for delivery of new technology.

- *Measure the business value created with technology and share it broadly.* Technology-performance measurement often focuses on cost and risk, rather than value generation. CIOs should ensure their organizations measure and know the value they create for the business—and make sure the rest of the company knows it, too. As technology organizations shift to more agile, iterative ways of working, it's also important to adjust how—and how often—they measure performance. Some organizations use quarterly business reviews, attended by both IT and business leadership, to highlight and pressure-test the value created by technology teams.

The survey content and analysis were developed by **Anusha Dhasarathy**, a partner in McKinsey's Chicago office, where **Ross Frazier** is an associate partner, **Naufal Khan** is a senior partner, and **Amit Rahul** is an associate partner.

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