



**Harvard
Business
Review**

ANALYTIC SERVICES

Pulse Survey

BUILDING FOR SUCCESS AT THE FIRSTLINE OF BUSINESS



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Digital transformation is fundamentally shifting the way companies do business and empower their employees. It requires delivering a modern workplace designed to meet evolving employee expectations, to connect a more widely distributed workforce, and to manage an increasingly complex digital landscape. A truly modern workplace provides tools and solutions that allow all employees to work better together to confidently achieve results and make more valuable contributions to companies of all sizes. It brings out the creativity and ingenuity of employees so that they can better engage customers, optimize operations, and continue to transform products and business models. But a fully successful digital transformation requires all workers to participate—from the boardroom to the executive team and to Firstline Workers throughout an organization.

Firstline Workers are the more than two billion people in roles that make them the first points of contact between a company and the world it serves. They are the people behind the counter, on the phone, in the clinics, on the shop floor, and at the help desk. They are often the first to engage customers, the first to represent a company's brand, and the first to see products and services in action. They form the backbone of many of the world's largest industries, and without them, the ambitions and strategies of company leaders could not be brought to life.

At Microsoft, our mission is to empower every person and every organization on the planet to achieve more. We aim to build tools for the modern workplace to close long-standing technology gaps that separate employees from the data, resources, and expertise they need to do their best work—whether in the C-suite or on the Firstline.

Firstline Workers have huge but untapped potential to promote growth, spark innovation, and accelerate an organization's success in the digital age. In our faster, more competitive world, it should be one of the top priorities of every leader to unleash this potential by empowering Firstline Workers. Their unique perspectives, insights, expertise, and creativity can help reshape work cultures and unlock new ideas.

We partnered with Harvard Business Review Analytic Services to examine the unique role and importance of the Firstline Workforce within the context of digital transformation across five industries: retail, manufacturing, hospitality, public sector, and health care. This series will explore the opportunity organizations have to build more intuitive, immersive, and empowering experiences for Firstline Workers and provide new solutions that reshape how employees think, innovate, and take action for their customers and for the business.



KIRK KOENIGSBAUER
**CORPORATE VICE
PRESIDENT, OFFICE**
MICROSOFT

BUILDING FOR SUCCESS AT THE FIRSTLINE OF BUSINESS

Firstline workers—employees who are the first point of contact between organizations and their customers or who spend most of their time making products or managing operations—often have been an afterthought in many organizations’ digital transformation efforts. That is starting to change. Business leaders looking to increase the efficiency and effectiveness of their workforce are extending their digital efforts beyond what we typically think of as knowledge workers to include maintenance workers, shop clerks, nurses, flight attendants, electricians, baristas, store managers, and others. Indeed, the vast majority of respondents to a recent global survey from Harvard Business Review Analytic Services believe this will be essential to their organization’s success in the future.

All the 383 business leaders who responded to the survey come from organizations that employ firstline workers, with nearly two-thirds (64%) saying that a significant proportion of their employees work on the firstline of business. Respondents were primarily from large and medium-size organizations in a variety of geographies and industries, including financial services, manufacturing, technology, health care, retail, and more.

More than three-quarters of the respondents (78%) strongly agreed with the statement “To be successful in the future, our organization must connect and empower its firstline workers with technology and information.” This recognition of the importance of digitally enabling firstline workers was fairly consistent across organizations, regardless of how far along they were on their digital journeys.

However, most organizations said there is still a gap in their ability to create this full connection for firstline workers, and the degree to which they have been able to do so varies based on the type of work being done. While close to half (47%) say a majority of their customer-facing firstline workers are digitally connected and empowered, only 26% say this is true for firstline workers who produce goods and maintain or operate equipment.

Closing that gap involves leadership commitment, investment in digital capabilities and technologies, process change, and training for both firstline workers and the managers who support them. It will not be a direct journey. Every company’s needs are different because their portfolios are different, but including firstline

HIGHLIGHTS

78%
SAY THAT CONNECTING AND EMPOWERING FIRSTLINE WORKERS IS CRITICAL

67%
SAY INCREASED EFFICIENCY IS THEIR TOP DRIVER

60%
WILL ADOPT ADVANCED ANALYTICS IN THE NEXT TWO YEARS



ONE RESPONDENT SAID THAT DIGITIZING FIRSTLINE WORK DELIVERS THE TRIFECTA OF EFFICIENCY, QUALITY, AND CUSTOMER SATISFACTION.

workers in your organization’s digital transformation is important to spur innovation, customer engagement, and, ultimately, better business outcomes. Companies that have made the commitment to digital transformation in general have realized significant returns; for example, digitally mature companies that were part of a three-year research project conducted by the MIT Initiative on the Digital Economy were 26% more profitable, generated 9% more revenue from their physical assets, and achieved 12% higher market valuations than other large firms in their industries.¹ To sustain that advantage, digital leaders are extending their efforts to their firstline workforce.

Increased Efficiency and a Better Customer Experience

Company leaders are first and foremost looking to gain efficiencies from digitally enabling their firstline workers, regardless of whether they are customer-facing or producers/operators, naming this their number one driver.

FIGURE 1 “The well-digitized workforce can be more effective, faster, and more

efficient in daily business, which can increase profitability and [financial] turnover,” said one respondent.

For customer-facing workers, this priority was followed closely by enhanced customer engagement. “It will build a strong relationship with the customer by enabling smoother transactions and equipping the frontline worker with information that will assist the customer,” said another.

In an open-ended question asking what they see as the greatest opportunity for their organization in digitizing the firstline, responses were equally split between efficiency and enhanced customer engagement. A number of people named both together, with one respondent saying, “This is the first time that one does not come at the expense of the other.”

Digitally enabling firstline workers also “empowers them to be more engaged in innovation work, allows efficiencies to be tracked automatically, and reduces duplication of tasks,” said another.

One respondent said that digitizing firstline work delivers the trifecta of efficiency, quality, and customer satisfaction. “With new lean, efficient, and effective processes, this has shortened lead times while improving quality and hence improving customer satisfaction. We have greater insight into customer interactions as well as improved analytical capabilities.”

The ability to augment firstline work with technology and data can deliver tangible benefits. “Combining human talent with technology empowerment enables people to do things humans are not equipped to do on their own,” said Jeffrey Rayport, a professor at Harvard Business School and author of *Best Face Forward*. “If you care about increasing productivity or competing on the quality of your customer interactions, in most situations you can’t assume that either technology alone or humans alone will provide the optimal answer.”

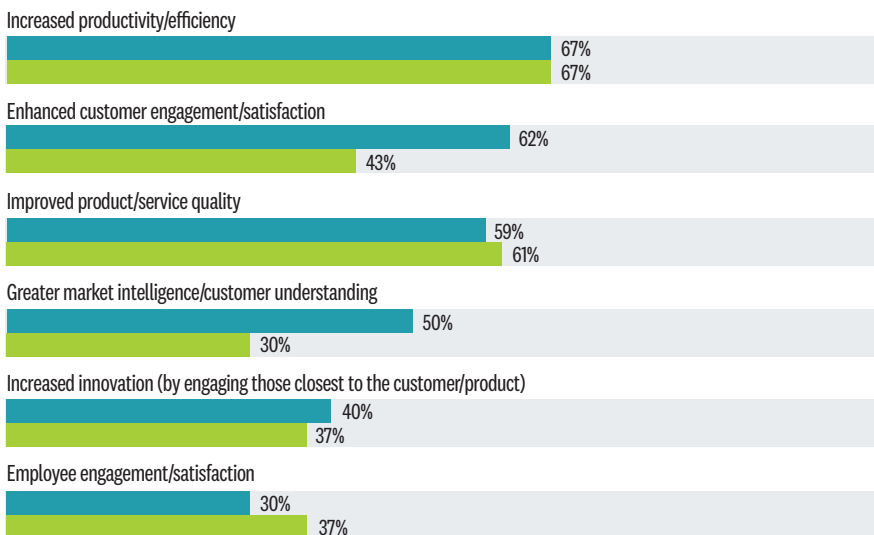
Michael Schrage, research fellow at the MIT Sloan School of Management’s Initiative on the Digital Economy and author of *Who Do You Want Your Customers to Become?*, says the type of technology that business leaders invest

FIGURE 1

PRIMARY DRIVERS

What are the primary drivers for creating a more digitally connected and empowered firstline workforce?

● CUSTOMER FACING ● PRODUCERS/OPERATORS



SOURCE: HARVARD BUSINESS REVIEW ANALYTIC SERVICES SURVEY, JULY 2017

in for firstline work largely depends on whether they view labor primarily as a cost to be managed or as a resource to be cultivated in the service of innovation and a better customer experience.

“Organizations that look at frontline workers more as a cost to be managed and want to reduce the frequency of touch will invest differently than those championing improved customer experience,” he said. “That’s not to say you can’t do both,” he added. “[But] to the extent that the frontline person is supposed to (a) add value, (b) reduce friction, or (c) make things easier for the organization internally, companies will have different portfolios of investment.”

Additional drivers of investments in firstline digitalization that rose to the top of respondents’ lists include quality, innovation, market intelligence/customer understanding, and employee engagement/satisfaction (respondents were able to select up to five from a list of 12).

Many Companies Have a Gap to Close

Overall, customer-facing firstline workers (retail clerks, flight attendants, nurses, etc.) are almost twice as likely to have been digitally connected and empowered than firstline workers who produce, operate, or maintain products and equipment (farmers, factory workers, mechanics, etc.) at 47% and 26%, respectively. This reflects the fact that many organizations began their overall digital transformation efforts by focusing on the customer. Now they’re engaging their firstline workers in those efforts as well.

“The best outcomes come when people who really understand the customer experience can exploit technology and information [at the point of customer contact],” said Peter Cappelli, George W. Taylor Professor of Management and director, Center for Human Resources, at Wharton. This means empowering those workers with both technology and a degree of autonomy in how they perform their jobs. “Trying to manage things from the top down is a really bad idea,” he said, pointing to nursing as an example, with better outcomes resulting from nurses being provided with the

information to make better decisions and, conversely, providing new insight and data through their every action to unlock new ideas and value.

Of course, this is somewhat dependent on the specific job category or business model. Digitization in the quick-serve restaurant business may be more about automating the ordering process and removing people from the process. But even here there are exceptions, and companies will have to balance the importance of lowering labor costs with the value of using humans for what they’re good at and empowering them to do that with technology. Pure automation quickly becomes a commodity in competitive markets. Differentiation comes from empowering individuals to do higher-quality, higher-value work.

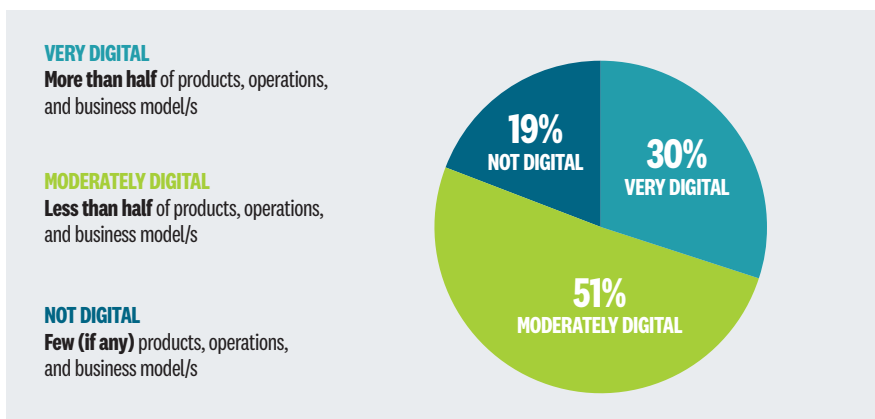
There are significant differences between companies that are further along on their digital journeys and those that are just beginning. Close to a third of respondents described their organization as “Very Digital,” around half are “Moderately Digital,” and around a fifth are “Not Digital.” FIGURE 2

While the Not Digital respondents are as likely as others to say that digitally enabling their firstline workers is critical to their organization’s future, there is

FIGURE 2

DIGITAL BREAKDOWN OF RESPONDENTS’ ORGANIZATIONS

How much of your organization’s products, operations, and business model/s depend on the ability to exploit digital information and technologies?



SOURCE: HARVARD BUSINESS REVIEW ANALYTIC SERVICES SURVEY, JULY 2017

Sixty-two percent of the Very Digital say their company is **increasing its investment** in digital capabilities to transform the firstline workforce and their technology and environment.

a huge gap between where they are today and where they know they need to be. For example, three-quarters (74%) of all respondents say it is extremely important to digitally enable customer-facing firstline workers, but only 25% of Not Digital companies have done so.

FIGURE 3

And while 59% overall say it is extremely important to digitally enable firstline producers/operators, only 10% of Not Digitals are there, compared with 46% of the Very Digital.

Making It Happen

Executives must be proactive in investing in and developing their firstline workers, approaching this with the same rigor and discipline with which they tackle any other operational transformation. By looking at the significant differences between the Very

Digital organizations and the rest, we can see what needs to happen in terms of leadership, investment, training, and more to bring firstline workers into the digital future.

The Very Digital organizations are doing what it takes to make this happen.

Leadership: Sixty-one percent of Very Digital organizations have leaders who promote a more digitally connected and empowered firstline workforce, compared with only 36% of Moderately Digital and 16% of Not Digital companies.

Investment: Sixty-two percent of the Very Digital say their company is increasing its investment in digital capabilities to transform the firstline workforce and their technology and environment. Only 41% of Moderately Digitals and 22% of Not Digitals are making this investment.

Overall Support: Fifty percent of Very Digital respondents say they are doing everything necessary to create a more digitally connected and empowered firstline workforce (e.g., putting in place the needed technologies, processes, and training). Only 26% of Moderately Digitals and 14% of Not Digitals make this claim.

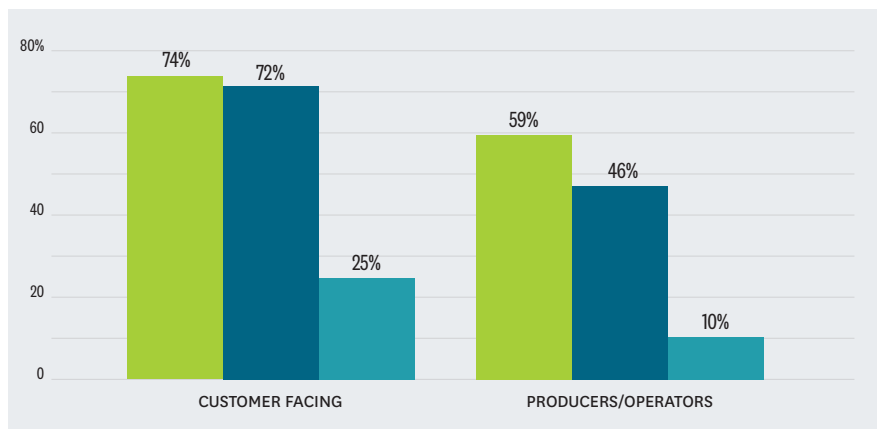
Specifically, Very Digital companies are almost twice as likely as Not Digitals to invest in skill development programs and technology to enable firstline workers to develop, grow, and apply new skills and expertise (83% versus 42%). Even more extreme, 74% of Very Digitals have an effective communication and change management program to support the shift to digital firstline work and technologies, compared with only 14% of Not Digitals. “Most businesses don’t know how to empower people,” said Wharton’s Cappelli. “They don’t understand a high-commitment way of

FIGURE 3

EXTREMELY IMPORTANT COMPARED WITH CURRENTLY ENABLED

How important is it to the success of your business to digitally enable customer-facing firstline workers?

● EXTREMELY IMPORTANT [ALL] ● VERY DIGITALLY ENABLED ● NOT DIGITALLY ENABLED



SOURCE: HARVARD BUSINESS REVIEW ANALYTIC SERVICES SURVEY, JULY 2017

managing the workforce. You have to spend a lot of time managing employee relationships, keeping people happy.” All workers, from the boardroom to the firstline, must be engaged in and benefit from change.

Firstline managers who know how to invest in and empower workers are key to managing labor as a resource and improving effectiveness, said Schrage. “They’re going to use workplace analytics and video of employees as they’re trying to help someone, serving customers, or installing cable,” he said. Together with the employee, they’ll look at the steps they take and their body language, listen to their tone of voice, and use that information to improve—all made possible through the digitization and instrumentation of the firstline workplace. Good firstline managers “care not just about helping people perform better, but they want to help them actually be better,” said Schrage.

Very Digitals are almost twice as likely to incent firstline managers, at 56% versus 29%, to encourage their employees to take advantage of training and other resources. These incentives typically show up in managers’ performance appraisals and affect promotions and bonuses. At one respondent’s company, “it’s part of every line manager’s KPIs and translates to monetary and career milestone rewards and recognition.”

Another company ties bonuses to training spend in a very direct way. “Every employee has a yearly training budget of €2,000. All the budget not spent is subtracted from the earnings of each business unit, on which the manager receives his or her bonus. So less training budget spend, less bonus for the manager.”

A big hurdle at many companies, according to Wharton’s Cappelli, is that training budgets have been squeezed to very little. “It can be easier to get money to automate jobs than to invest in empowering people,” he said. “CFOs hate fixed costs, and labor is a fixed cost.” This is the wrong way to look at things, he believes. “If you look at measures of quality and productivity, they’re much better when you empower employees.”

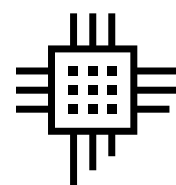
Without training, communication, and change programs in place, many efforts to digitally enable firstline workers will likely fail. Again, there are circumstances where that’s not the case. For example, in high-volume, high-turnover service sector jobs, “tasks are not sufficiently complex to require intensive training,” said Rayport. “Does Uber train its drivers? Absolutely not. Drivers train themselves.” Similarly, in the quick-serve restaurant industry, where annual employee turnover is over 100%, the technology must be intuitive and easy to use, with “training” built into the process or device itself. Digitization of tasks in these cases “is only scalable when it requires little to no training.”

Technology, Security, and the Role of IT

When we look at the adoption of specific technologies for firstline work, what we’re really seeing are stages in the digital journey. The adoption of analytics; communications and collaboration tools; and learning and performance management represent the foundational areas for digitizing firstline work. The use of tablets, smartphones, and virtual workspaces is what can really empower and enable firstline workers. And the use of artificial intelligence, the internet of things, and endpoint security is key to the future reality of the human/machine partnership. **FIGURE 4**

Schrage believes that in that future, “the happiest and most effective firstline workers will be people pleasers who know how to follow the advice of their machines.... Their devices will help them interact with their customers better” by giving them pop-up information and scripts and reminding them to smile or show empathy—“the same way a producer whispers in a news anchor’s ear.”

Getting there won’t be a linear process, according to Rayport. “We are reapportioning the division of labor between humans and machines. Because technology is changing so quickly, the pace at which we change the definition of human jobs will accelerate as well.”

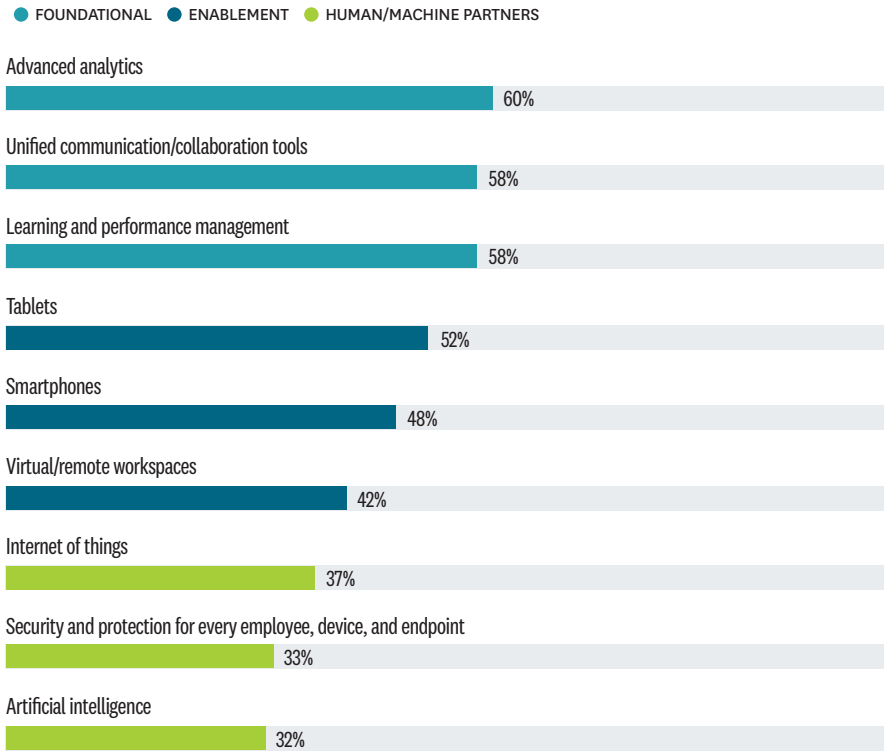


THE USE OF ARTIFICIAL INTELLIGENCE, THE INTERNET OF THINGS, AND ENDPOINT SECURITY ARE KEY TO THE FUTURE REALITY OF THE HUMAN/MACHINE PARTNERSHIP.

FIGURE 4

ADOPTION OF TECHNOLOGIES FOR FIRSTLINE WORKERS

What technologies do you expect your organization to adopt for its firstline workforce over the next two years?



RESPONDENTS NAMED THE COST OF ROLLING OUT DIGITAL TECHNOLOGIES TO A BROADER CUSTOMER BASE AS THE NUMBER ONE BARRIER TO ENABLING FIRSTLINE WORKERS.

Cappelli worries that rather than seek to augment and empower firstline workers, companies will default to replacing them with automation. “This is not a kumbaya moment,” he said. “Some executives see technology as a way to protect themselves from labor problems. They think if they just put in technology, they won’t have to worry about turnover. But that doesn’t ensure they’re going to do better as an organization. It might be easier than managing the people front, but it doesn’t lead to better outcomes.”

Providing firstline workers with technology and access to company data extends the need for data and device security and raises new questions. Around half of all respondents say their organization has sufficient security and governance practices in place as more autonomy is pushed to the edge, with Very Digitals more than twice as likely to say so than Not Digitals (68% versus 30%).

“Data security really matters,” said Rayport. Especially in high-volume, high-turnover work environments, “most employees won’t be on your payroll in a matter of a few months.” Companies will need to figure out which data workers should have access to and how much power to give the individual to look into the data. At the same time, organizations must learn to manage an increasingly complex regulatory environment, with the rise of things like the European Union’s General Data Protection Regulation.

Managing a digital firstline workforce will create new challenges for the information technology department. Very Digital companies are extremely confident in their organizations’ IT management capabilities when it comes to equipping, supporting, and managing this new digital workforce, with 83% claiming such capabilities compared with only 34% of Not Digitals. It’s difficult to see how companies can succeed without this capability.

There are other hurdles to overcome as organizations go through this transformation. First, it requires investment. Respondents named the cost of rolling out digital technologies to a broader customer base as the number

“DATA SECURITY REALLY MATTERS, ESPECIALLY IN HIGH-VOLUME, HIGH-TURNOVER WORK ENVIRONMENTS.”
JEFFREY RAYPORT

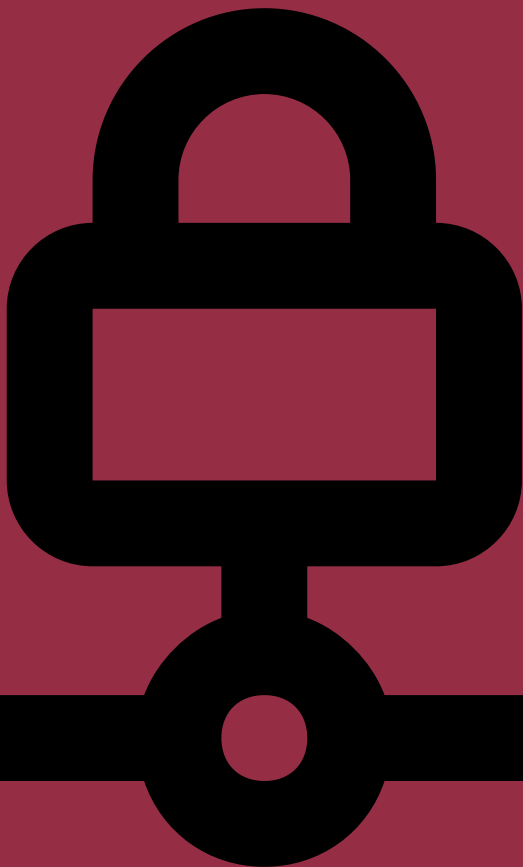
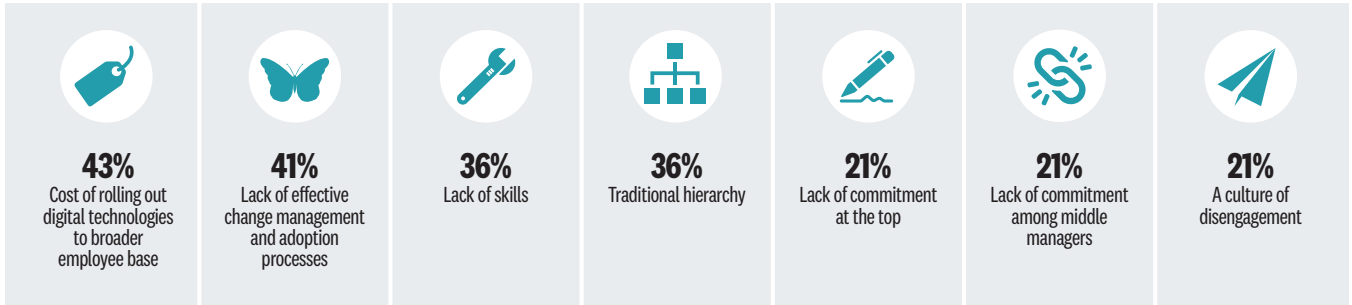


FIGURE 5

BARRIERS TO DIGITALLY ENABLING FIRSTLINE WORKERS

What are the greatest barriers to digitally enabling firstline workers at your organization?



SOURCE: HARVARD BUSINESS REVIEW ANALYTIC SERVICES SURVEY, JULY 2017

one barrier. The lack of effective change management capabilities is a hurdle, as is the fact that in many cases, workers don't yet have the necessary skills to work in the new ways that will be required. From an initial list of eleven items, respondents named these among their top three barriers to digitally enabling firstline workers. **FIGURE 5**

Respondents are optimistic about the time frame for digitizing firstline work, with more than a fifth (22%) saying their firstline workforce has already been digitally enabled, more than a third (39%) saying it will happen in one to three years, another 30% saying three to five years, and only 10% saying they expect it to take longer than five years.

While a vast majority of business leaders recognize that their organizations' futures depend on digitally enabling and empowering firstline workers, many still have a lot of work to do. And while it's unlikely that transformation will be linear, with companies learning as they go and jobs changing as the mix of human and machine intelligence evolves, there are some clear guideposts getting started.

Transformation begins with company leaders defining and promoting their digital ambitions. It will require investment in technology and training, and defining new roles and goals for firstline managers. IT will have to adapt to supporting a much larger and more dispersed employee base. And securing devices and data for a larger, more mobile, and often less permanent workforce will require a different approach.

All workers, from the boardroom to the executive team to middle managers and across the firstline workforce, must participate and benefit from digital transformation. The payoff is worth it. Organizations that get it right will increase efficiency while also improving customer engagement and the quality of their operations. Those that look at technology primarily as a means to eliminate firstline workers are missing the point.



SECURING DEVICES AND DATA FOR A LARGER, MORE MOBILE, AND OFTEN LESS PERMANENT WORKFORCE WILL REQUIRE A DIFFERENT APPROACH.

Endnotes

1 "Digitally Mature Firms Are 26% More Profitable Than Their Peers," MIT Digital, <http://ide.mit.edu/news-blog/blog/digitally-mature-firms-are-26-more-profitable-their-peers>

METHODOLOGY AND PARTICIPANT PROFILE

A total of 383 respondents drawn from the HBR audience of readers (magazine/ newsletter readers, customers, HBR.org users) completed the survey.

SIZE OF ORGANIZATION

ALL RESPONDENTS' ORGANIZATIONS HAD 250 EMPLOYEES OR MORE.

30% 250-999 EMPLOYEES	39% 1,000-9,999 EMPLOYEES	31% 10,000 OR MORE EMPLOYEES
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SENIORITY

18% C-LEVEL OR EXECUTIVE MANAGEMENT	25% VICE PRESIDENT OR DIRECTOR	40% MANAGERS, SUPERVISORS, SENIOR MANAG- ERS, OR DEPART- MENT HEADS
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KEY INDUSTRY SECTORS

15% FINANCIAL SERVICES	12% MANUFACTURING	9% TECHNOLOGY	8% EDUCATION	8% GOVERNMENT/ NOT FOR PROFIT	6% TELECOMM	5% ENERGY/ UTILITIES	5% HEALTH CARE	5% OTHER
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JOB FUNCTION

18% GENERAL/ EXECUTIVE MANAGEMENT	10% SALES/BUSINESS DEVELOPMENT/ CUSTOMER SERVICE	7% MARKETING/ COMMUNICATIONS	7% STRATEGIC PLANNING	6% FINANCE/RISK	6% HR/TRAINING	5% OTHER
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