February 2017

McKinsey Quarterly

The case for digital reinvention

Digital technology, despite its seeming ubiquity, has only begun to penetrate industries. As it continues its advance, the implications for revenues, profits, and opportunities will be dramatic.

by Jacques Bughin, Laura LaBerge, and Anette Mellbye

As new markets emerge, profit pools shift, and digital technologies pervade more of everyday life, it's easy to assume that the economy's digitization is already far advanced. According to our latest research, however, the forces of digital have yet to become fully mainstream. On average, industries are less than 40 percent digitized, despite the relatively deep penetration of these technologies in media, retail, and high tech.

As digitization penetrates more fully, it will dampen revenue and profit growth for some, particularly the bottom quartile of companies, according to our research, while the top quartile captures disproportionate gains. Bold, tightly integrated digital strategies will be the biggest differentiator between companies that win and companies that don't, and the biggest payouts will go to those that initiate digital disruptions. Fast-followers with operational excellence and superior organizational health won't be far behind.

These findings emerged from a research effort to understand the nature, extent, and top-management implications of the progress of digitization. We tailored our efforts to examine its effects along multiple dimensions: products and services, marketing and distribution channels, business processes,

supply chains, and new entrants at the ecosystem level (for details, see sidebar "About the research"). We sought to understand how economic performance will change as digitization continues its advance along these different dimensions. What are the best-performing companies doing in the face of rising pressure? Which approach is more important as digitization progresses: a great strategy with average execution or an average strategy with great execution?

The research-survey findings, taken together, amount to a clear mandate to act decisively, whether through the creation of new digital businesses or by reinventing the core of today's strategic, operational, and organizational approaches.

MORE DIGITIZATION—AND PERFORMANCE PRESSURE—AHEAD

According to our research, digitization has only begun to transform many industries (Exhibit 1). Its impact on the economic performance of companies, while already significant, is far from complete.

This finding confirms what many executives may already suspect: by reducing economic friction, digitization enables competition that pressures revenue and profit growth. Current levels of digitization have already taken out, on average, up to six points of annual revenue and 4.5 points of growth in earnings before interest and taxes (EBIT). And there's more pressure ahead, our research suggests, as digital penetration deepens (Exhibit 2).

While the prospect of declining growth rates is hardly encouraging, executives should bear in mind that these are *average* declines across *all* industries. Beyond the averages, we find that performance is distributed unequally, as digital further separates the high performers from the also-rans. This finding is consistent with a separate McKinsey research stream, which also shows that economic performance is extremely unequal. Strongly performing industries, according to that research, are three times more likely than others to generate market-beating economic profit. Poorly performing companies probably won't thrive no matter which industry they compete in.[1]

At the current level of digitization, median companies, which secure three additional points of revenue and EBIT growth, do better than average ones, presumably because the long tail of companies hit hard by digitization pulls down the mean. But our survey results suggest that as digital increases

[1] Chris Bradley, Angus Dawson, and Sven Smit, "The strategic yardstick you can't afford to ignore," *McKinsey Quarterly*, October 2013, McKinsey.com.

economic pressure, all companies, no matter what their position on the performance curve may be, will be affected.

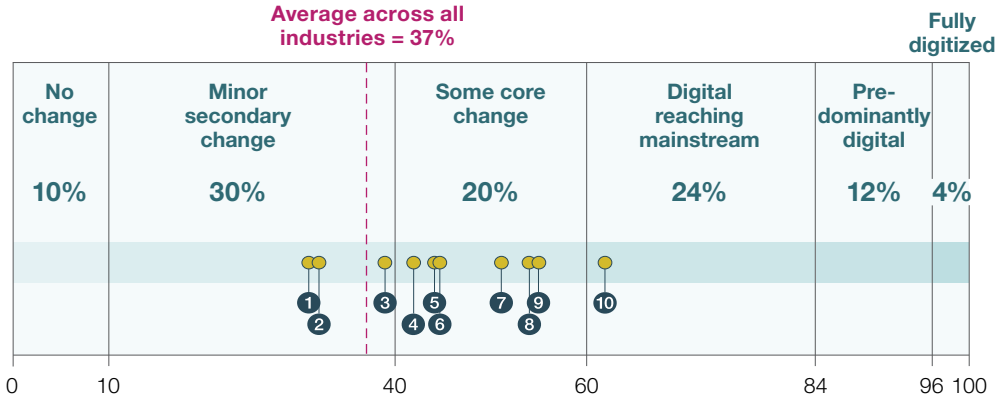
UNEVEN RETURNS ON INVESTMENT

That economic pressure will make it increasingly critical for executives to pay careful heed to where—and not just how—they compete and to monitor closely the return on their digital investments. So far, the results are uneven. Exhibit 3 shows returns distributed unequally: some players in every industry are earning outsized returns, while many others in the same industries are experiencing returns below the cost of capital.

Exhibit 1

Digital is penetrating all sectors, but to varying degrees.

Perception of digital penetration by industry,[1] % of respondents



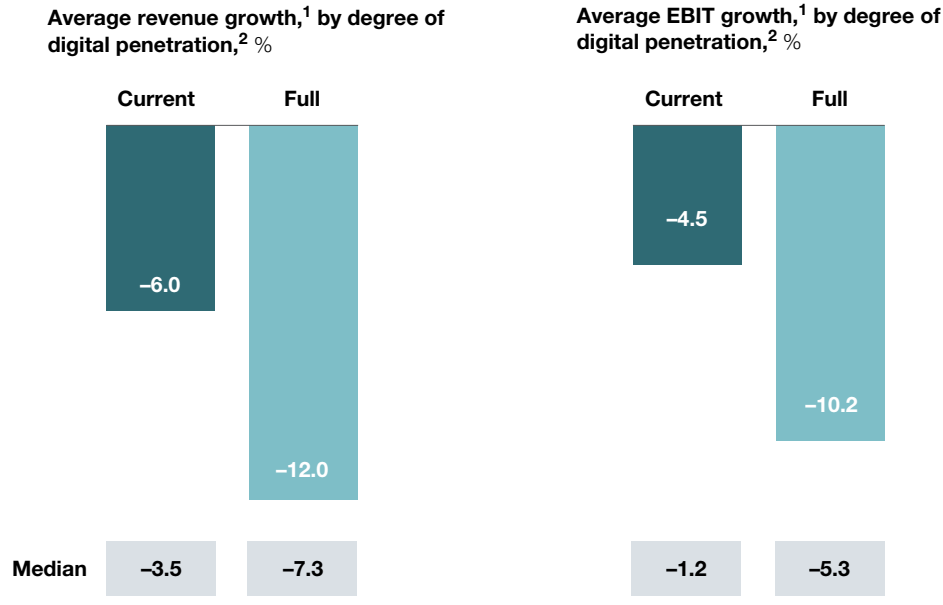
Selected industries[2]

1. Consumer packaged goods (31%)
2. Automotive and assembly (32%)
3. Financial services (39%)
4. Professional services (42%)
5. Telecom (44%)
6. Travel, transport, and logistics (44%)
7. Healthcare systems and services (51%)
8. High tech (54%)
9. Retail (55%)
10. Media and entertainment (62%)

[1] Data reflect average of respondents' ratings on degree of change in the past three years within each industry across 5 dimensions (products, marketing and distribution, processes, supply chains, and new entrants at the ecosystem level).
[2] For consumer packaged goods, n = 85; automotive and assembly, n = 112; financial services, n = 310; professional services, n = 307; telecom, n = 55; travel, transport, and logistics, n = 103; healthcare systems and services, n = 78; high tech, n = 348; retail, n = 89; and media and entertainment, n = 86.

Exhibit 2

Digitization is putting pressure on revenue and profit growth.



[1] We based our model of average growth in revenues and earnings before interest and taxes (EBIT) at current and full digitization on survey respondents' perceptions of their companies' responses to digitization, postulating causal links, and calculating their magnitude through both linear- and probit-regression techniques.
[2] Digital penetration estimated using survey responses; average digital penetration across industries currently = 37%.

These findings suggest that some companies are investing in the wrong places or investing too much (or too little) in the right ones—or simply that their returns on digital investments are being competed away or transferred to consumers. On the other hand, the fact that high performers exist in every industry (as we'll discuss further in a moment) indicates that some companies are getting it right—benefiting, for example, from cross-industry transfers, as when technology companies capture value in the media sector.

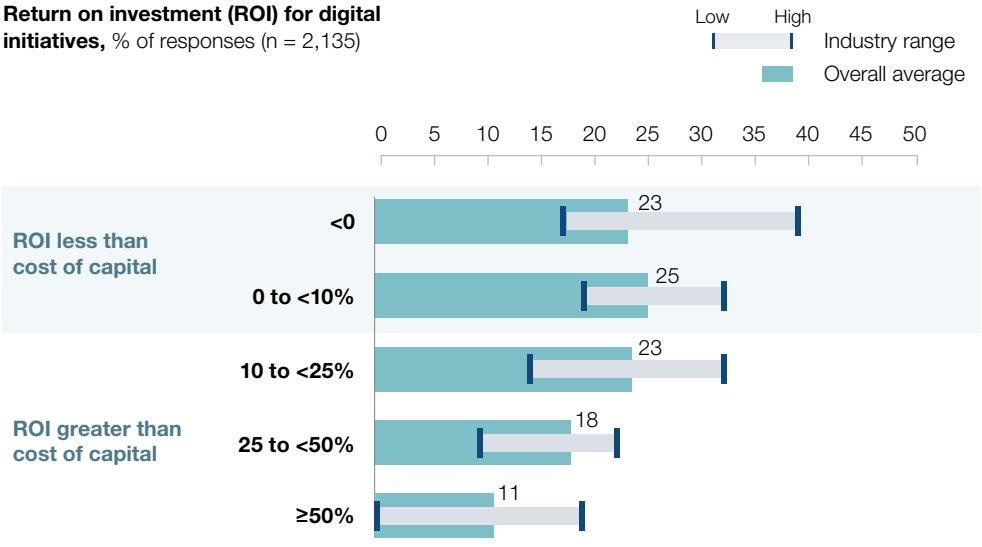
WHERE TO MAKE YOUR DIGITAL INVESTMENTS

Improving the ROI of digital investments requires precise targeting along the dimensions where digitization is proceeding. Digital has widely expanded the number of available investment options, and simply spreading the same amount of resources across them is a losing proposition. In our research, we measured five separate dimensions of digitization's advance into industries: products and services, marketing and distribution channels, business processes, supply chains, and new entrants acting in ecosystems.

How fully each of these dimensions has advanced, and the actions companies are taking in response, differ according to the dimension in question. And

Exhibit 3

Some digital initiatives generate attractive returns, while others don't return their cost of capital.



there appear to be mismatches between opportunities and investments. Those mismatches reflect advancing digitization's uneven effect on revenue and profit growth, because of differences among dimensions as well as among industries. Exhibit 4 describes the rate of change in revenue and EBIT growth that appears to be occurring as industries progress toward full digitization. This picture, combining the data for all of the industries we studied, reveals that today's average level of digitization, shown by the dotted vertical line, differs for each dimension. Products and services are more digitized, supply chains less so.

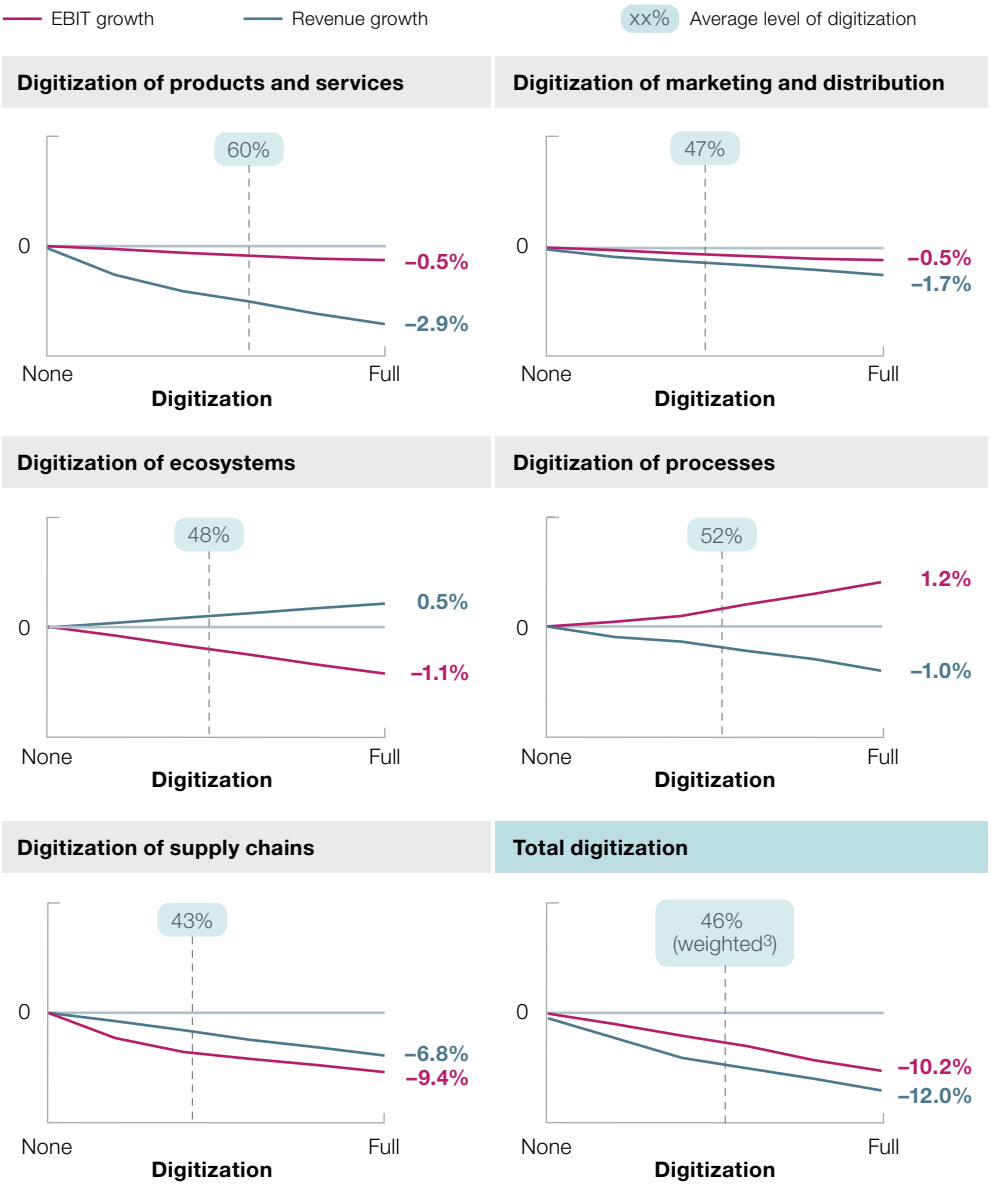
To model the potential effects of full digitization on economic performance, we linked the revenue and EBIT growth of companies to a given dimension's digitization rate, leaving everything else equal. The results confirm that digitization's effects depend on where you look. Some dimensions take a bigger bite out of revenue and profit growth, while others are digitizing faster. This makes intuitive sense. As platforms transform industry ecosystems, for example, revenues grow—even as platform-based competitors put pressure on profits. As companies digitize business processes, profits increase, even though little momentum in top-line growth accompanies them.

The biggest future impact on revenue and EBIT growth, as Exhibit 4 shows, is set to occur through the digitization of supply chains. In this dimension, full digitization contributes two-thirds (6.8 percentage points of 10.2 percent)

Exhibit 4

Products are more digitized, while supply chains are less so.

Effect of digitization on EBIT[1] and revenue relative to current growth trajectory (represented as 0),[2] % difference
Note: y axes scale to different values



[1]EBIT = earnings before interest and taxes.
[2]We based our model of average growth in revenue and EBIT at current and full digitization on survey respondents' perceptions of their companies' responses to digitization, postulating causal links, and calculating their magnitude through both linear- and probit-regression techniques.
[3]Weighted average for industries whose respondents replied on each of the 5 dimensions, reflecting a subset of total respondents surveyed. Unweighted average level of digitization across industries for all respondents = 37%.

of the total projected hit to annual revenue growth and more than 75 percent (9.4 out of 12 percent) to annual EBIT growth.

Despite the supply chain's potential impact on the growth of revenues and profits, survey respondents say that their companies aren't yet investing heavily in this dimension. Only 2 percent, in fact, report that supply chains are the focus of their forward-looking digital strategies (Exhibit 5), though headlining examples such as Airbnb and Uber demonstrate the power of tapping previously inaccessible sources of supply (sharing rides or rooms, respectively) and bringing them to market. Similarly, there is little investment in the ecosystems dimension, where hyperscale businesses such as Alibaba, Amazon, Google, and Tencent are pushing digitization most radically, often entering one industry and leveraging platforms to create collateral damage in others.[2]

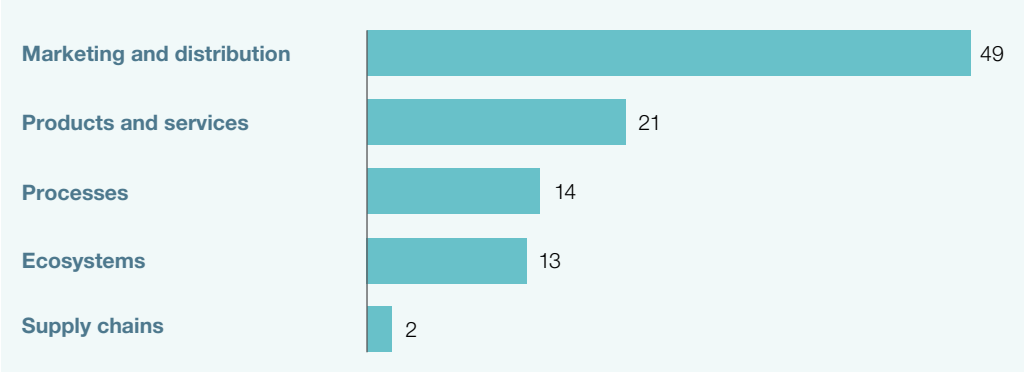
Instead, the survey indicates that distribution channels and marketing are the primary focus of digital strategies (and thus investments) at 49 percent of companies. That focus is sensible, given the extraordinary impact digitization has already had on customer interactions and the power of digital tools to target marketing investments precisely. By now, in fact, this critical dimension has become "table stakes" for staying in the game. Standing pat is not an option.

[2] For more about the supply-and-demand vectors through which disruptive threats and opportunities emerge, see Angus Dawson, Martin Hirt, and Jay Scanlan, "The economic essentials of digital strategy," *McKinsey Quarterly*, March 2016, McKinsey.com.

Exhibit 5

Where are companies focusing their forward-looking digital strategies?

% of respondents



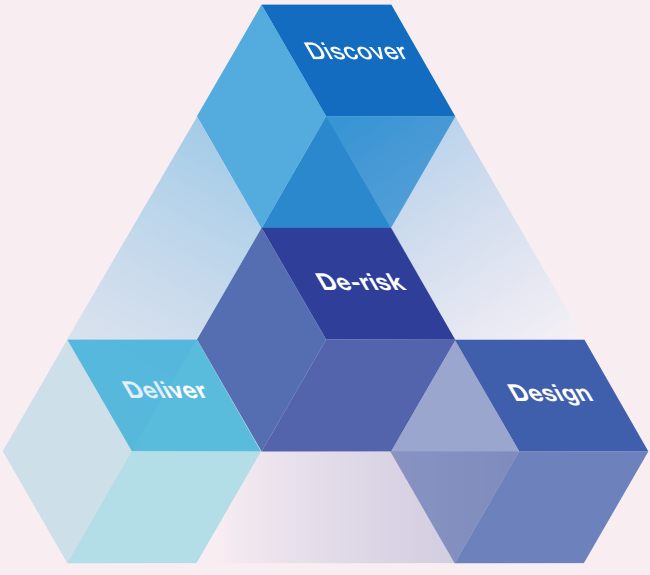
STRUCTURING YOUR DIGITAL REINVENTION

Leading companies invest more boldly in digital than their less well-performing counterparts do, according to McKinsey's 2016 digital survey. They also invest more *broadly* by targeting each dimension in which digitization is rapidly advancing: products and distribution, business processes, supply chains, and ecosystems. As executives look to deepen and broaden the digital reinvention of their own companies, they may benefit from a structured process grouped around discovering, designing, delivering, and de-risking their digital investments (exhibit). Let's look at each of these in turn.

Since industry effects account for two-thirds of a company's variation from average economic profit, according to McKinsey analysis, executives must *discover* the industry-level insights needed to identify sources of disruption as markets evolve. By grounding their insights in supply-and-demand shifts, they can more clearly recognize the vectors where disruption originates.[1] This reinvention phase also requires companies to assess the capabilities they must have to realize their strategic aspirations so that they can identify critical needs: cloud-based solutions, personalization and analytics, agile techniques, performance optimization, or something else.

Given the broad scope of the investment required, digital reinventions mandate an

Exhibit



Discover:
Shape digital ambition, strategy, and business case based on industry-level insights

Design:
Reinvent and prototype new capabilities and breakthrough journeys as part of a program

Deliver:
Activate an ecosystem of external partners to rapidly deliver at scale

De-risk:
Structure the change program, resources, and commercial model to reduce operational and financial risk

end-to-end *design* of business processes, with close attention to customer use cases, IT requirements, and organizational elements (such as structure, talent, incentives, and culture). The output of this work is a digital blueprint to address capability gaps and to recruit, develop, provide incentives for, and retain the necessary talent. The resulting implementation plan prioritizes the initiatives that generate the greatest economic value.

With these essentials in place, a digital reinvention must now *deliver* the capabilities needed to meet a company's strategic goals. No organization will have all the capabilities it needs within its own walls. Executives must therefore develop an ecosystem of external teams, partners, suppliers, and customers, including a mix of platform players, delivery specialists, and niche outfits with specific industry expertise and capabilities. The reinvention team must not only play "air traffic controller" for the project's numerous moving parts but also have the credibility and skill to solve problems along the many facets of the business.

Across all of these stages, executives can structure the process to minimize risk. Cybersecurity is one obvious area of focus. Companies can further *de-risk* their reinventions by embracing DevOps, in which teams learn to automate tests for software, establish systems that roll back failures in seconds, and make fixes without putting significant parts of the business at risk.[2]

[1] Angus Dawson, Martin Hirt, and Jay Scanlan, "The economic essentials of digital strategy," *McKinsey Quarterly*, March 2016, McKinsey.com.

[2] For more about integrating DevOps into the core of your business, see Satty Bhens, Ling Lau, and Shahar Markovitch, "Finding the speed to innovate," April 2015, McKinsey.com.

Peter Dahlström is a senior partner in McKinsey's London office, where **Liz Ericson** is a partner.

The question, it seems, looking at exhibits 4 and 5 in combination, is whether companies are overlooking emerging opportunities, such as those in supply chains, that are likely to have a major influence on future revenues and profits. That may call for resource reallocation. In general, companies that strategically shift resources create more value and deliver higher returns to shareholders.[3] This general finding could be even more true as digitization progresses.

ON THE FRONT FOOT

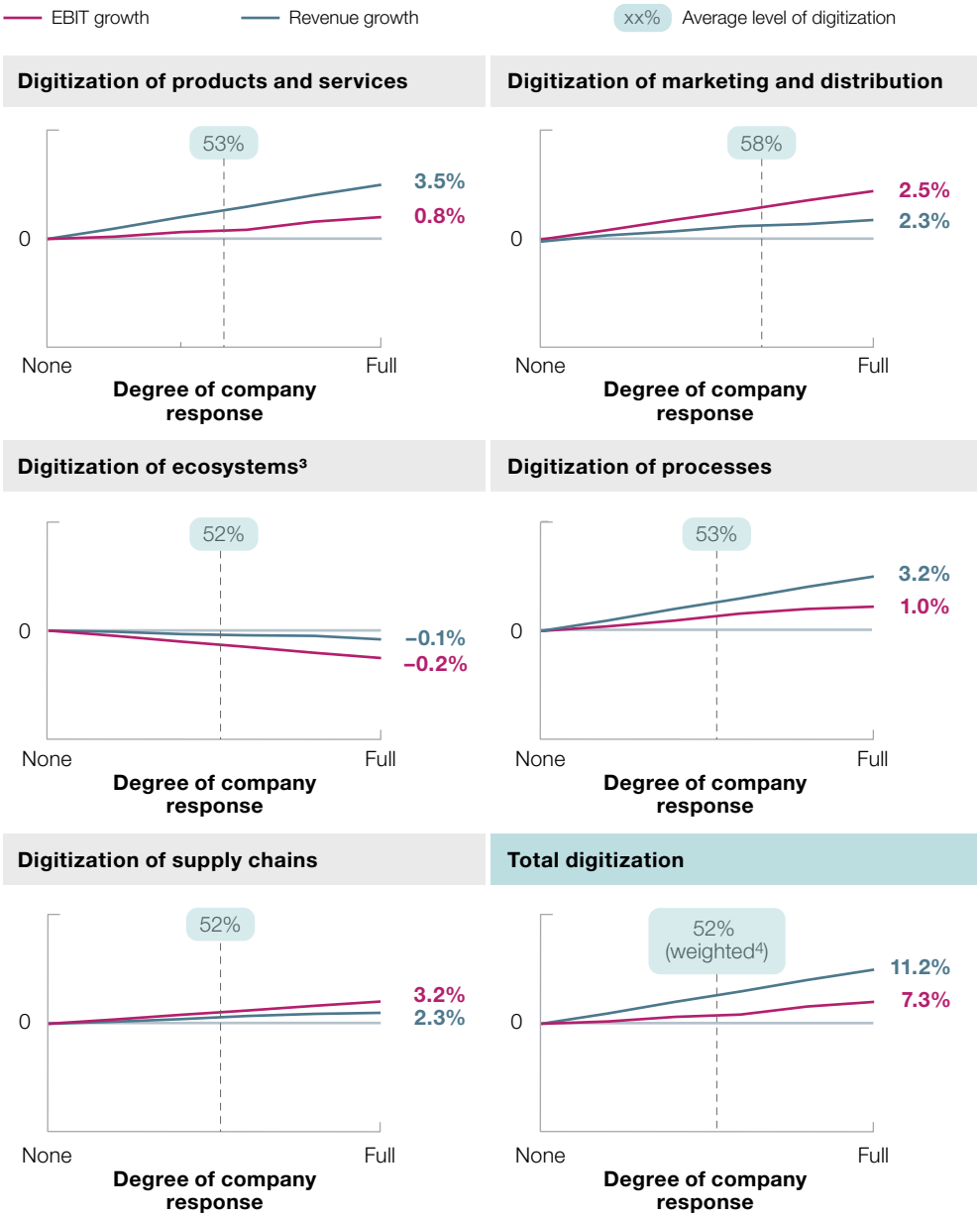
Our survey results also suggest companies are not sufficiently bold in the magnitude and scope of their investments (see sidebar "Structuring your digital reinvention"). Our research (Exhibit 6) suggests that the more aggressively they respond to the digitization of their industries—up to and including initiating digital disruption—the better the effect on their projected revenue and profit growth. The one exception is the ecosystem

[3] Stephen Hall, Dan Lovallo, and Reinier Musters, "How to put your money where your strategy is," *McKinsey Quarterly*, March 2012, McKinsey.com.

Exhibit 6

When companies respond to digitization assertively and across multiple dimensions, they improve their performance.

Effect of company response to digitization on EBIT[1] and revenue relative to current growth trajectory (represented as 0),[2] % difference
Note: y axes scale to different values



[1]EBIT = earnings before interest and taxes.
[2]We based our model of average growth in revenue and EBIT at current and full digitization on survey respondents' perceptions of their companies' responses to digitization, postulating causal links, and calculating their magnitude through both linear- and probit-regression techniques.
[3]Overactive response to new competitors in ecosystems can actually lower projected growth.
[4]Weighted average for industries whose respondents replied on each of the 5 dimensions, reflecting a subset of total respondents surveyed. Unweighted average level of digitization across industries for all respondents = 37%.

dimension: an overactive response to new hyperscale competitors actually lowers projected growth, perhaps because many incumbents lack the assets and capabilities necessary for platform strategies.

As executives assess the scope of their investments, they should ask themselves if they have taken only a few steps forward in a given dimension—by digitizing their existing customer touchpoints, say. Others might find that they have acted more significantly by digitizing nearly all of their business processes and introducing new ones, where needed, to connect suppliers and users.

To that end, it may be useful to take a closer look at Exhibit 6, which comprises six smaller charts. The last of them totals up actions companies take in each dimension of digitization. Here we can see that the most assertive players will be able to restore more than 11 percent of the 12 percent loss in projected revenue growth, as well as 7.3 percent of the 10.4 percent reduction in profit growth. Such results will require action across all dimensions, not just one or two—a tall order for any management team, even those at today's digital leaders.

LOOKING AT THE DIGITAL WINNERS

To understand what today's leaders are doing, we identified the companies in our survey that achieved top-quartile rankings in each of three measures: revenue growth, EBIT growth, and return on digital investment.

We found that more than twice as many leading companies closely tie their digital and corporate strategies than don't. What's more, winners tend to respond to digitization by changing their corporate strategies significantly. This makes intuitive sense: many digital disruptions require fundamental changes to business models. Further, 49 percent of leading companies are investing in digital more than their counterparts do, compared with only 5 percent of the laggards, 90 percent of which invest less than their counterparts. It's unclear which way the causation runs, of course, but it does appear that heavy digital investment is a differentiator.

Leading companies not only invested more but also did so across *all* of the dimensions we studied. In other words, winners exceed laggards in both the *magnitude* and the *scope* of their digital investments (Exhibit 7). This is a critical element of success, given the different rates at which these dimensions are digitizing and their varying effect on economic performance.

Strengths in organizational culture underpin these bolder actions. Winners were less likely to be hindered by siloed mind-sets and behavior or by a fragmented view of their customers. A strong organizational culture is

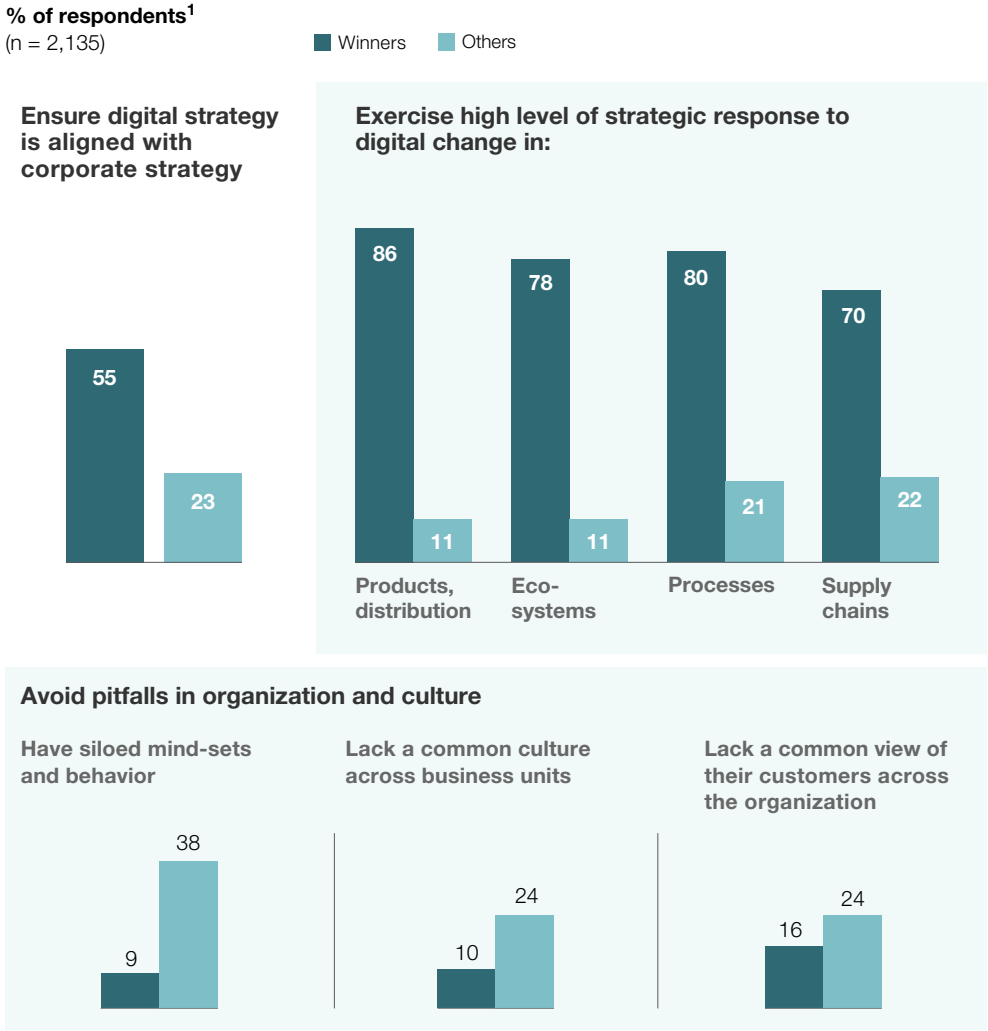
important for several reasons: it enhances the ability to perceive digital threats and opportunities, bolsters the scope of actions companies can take in response to digitization, and supports the coordinated execution of those actions across functions, departments, and business units.

BOLD STRATEGIES WIN

So we found a mismatch between today's digital investments and the dimensions in which digitization is most significantly affecting revenue and profit growth. We also confirmed that winners invest more, and more broadly and boldly, than other companies do. Then we tested two paths to growth as industries reach full digitization.

Exhibit 7

What leading companies do differently from the rest



The first path emphasizes strategies that change a business's scope, including the kind of pure-play disruptions the hyperscale businesses discussed earlier generate. As Exhibit 8 shows, a great strategy can by itself retrieve all of the revenue growth lost, on average, to full digitization—at least in the aggregate industry view. Combining this kind of superior strategy with median performance in the nonstrategy dimensions of McKinsey's digital-quotient framework—including agile operations, organization, culture, and talent—yields total projected growth of 4.3 percent in annual revenues. (For more about how we arrived at these conclusions, see sidebar "About the research.")

Most executives would fancy the kind of ecosystem play that Alibaba, Amazon, Google, and Tencent have made on their respective platforms. Yet many recognize that few companies can mount disruptive strategies, at least at the ecosystem level. With that in mind, we tested a second path to revenue growth (Exhibit 9).

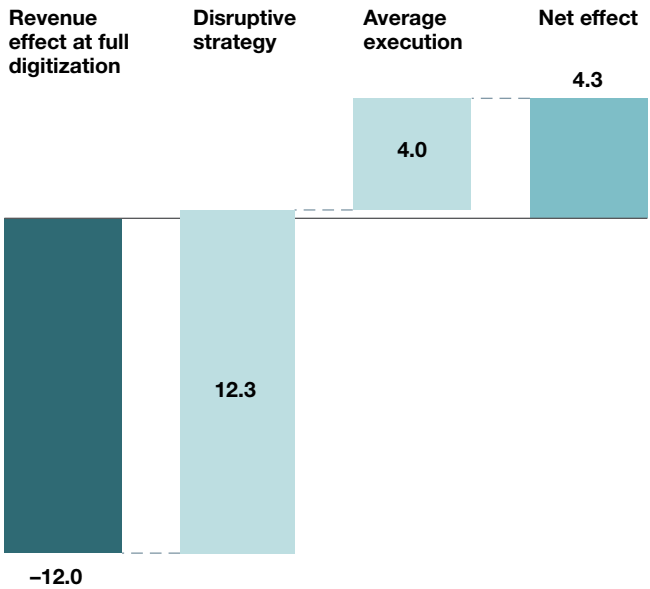
Companies in this profile lack a disruptive strategic posture but compensate by being in the top 25 percent for all the other elements of digital maturity.[4] This fast-follower profile allows more room for strategic error—you don't

[4] For more about digital maturity, see Tanguy Catlin, Jay Scanlan, and Paul Willmott, "Raising your Digital Quotient," *McKinsey Quarterly*, June 2015, McKinsey.com.

Exhibit 8

Disruptive strategies are a powerful response to intense digitization.

Revenue-growth profile, %



ABOUT THE RESEARCH

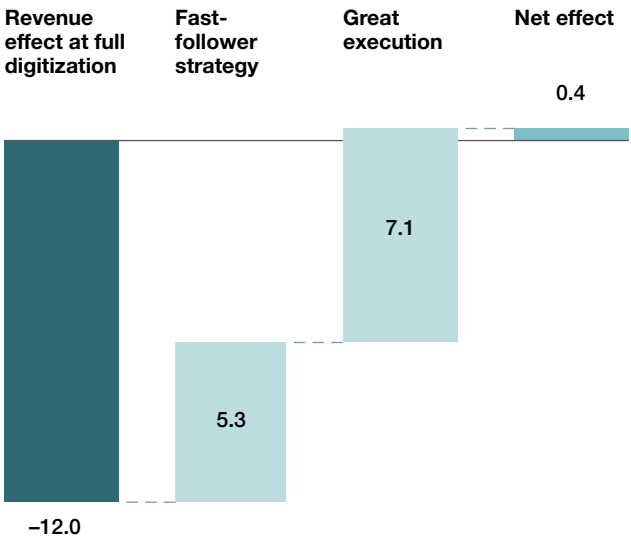
To go beyond the descriptive statistics that limit the relevance of so much survey research, we built a causal model of digital performance. The model's first input, from the survey itself, conveyed the current level of digitization (as reported by companies) in each of five dimensions: products and services, marketing and distribution channels, business processes, supply chains, and new entrants at the ecosystem level. The second input from the survey was the level of response companies had taken, and planned to take, on those dimensions, as well as their core enabling strategic and organizational capabilities.

We then modeled average growth in revenue and earnings before interest and taxes (EBIT) for all companies in the sample at current and full digitization, based on survey respondents' perceptions of their companies' responses to digitization, postulating causal links, and calculating their magnitude through both linear- and probit-regression techniques, controlling for industry, company size, geography, and type of customer segment (B2B or B2C).

Exhibit 9

Fast-following and great execution are the next best thing to disruption.

Revenue-growth profile, %



have to place your bets quite so precisely. It also increases the premium on how well you execute. The size of the win is just slightly positive at 0.4 percent in annual revenue growth: 5.3 percent from good (but not best-in-class disruptive) strategy and an additional 7.1 percent through top-quartile digital maturity. This is probably good news for incumbents, since many of them are carefully watching tech start-ups (such as those in fintech) to identify the winning plays and then imitating them at their own bigger scale. That approach, to be sure, demands cutting-edge agility to excel on all the operational and organizational aspects of digital maturity.

In the quest for coherent responses to a digitizing world, companies must assess how far digitization has progressed along multiple dimensions in their industries and the impact that this evolution is having—and will have—on economic performance. And they must act on each of these dimensions with bold, tightly integrated strategies. Only then will their investments match the context in which they compete. Q

Jacques Bughin is a director of the McKinsey Global Institute and a senior partner in McKinsey's Brussels office; **Laura LaBerge** is a senior practice manager of Digital McKinsey and is based in the Stamford office; and **Anette Mellbye** is an associate partner in the London office.

The authors wish to thank Dan Lovallo, Soyoko Umeno, and Nicolas van Zeebroeck for their contributions to this article.