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AND
SALES

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This Quarter

A decade ago, McKinsey's David Court, Jonathan Gordon, and Jesko Perrey argued in these pages that the “traditional marketing model is being challenged, and [marketers] can foresee a day when it will no longer work.”¹ Since then, digitization has continued to complicate the media environment, but it also has created new ways of engaging with customers and understanding their needs.

In fact, Gordon and Perrey suggest in this issue's lead article that we are on the cusp of a golden age for marketing, in which great storytelling and more scientific approaches come together in exciting ways. Marketers on the cutting edge are starting to master this fusion as they deliver valuable substance to their customers while simplifying their organizations so that they can operate with more speed. Mastering the rapid evolution of these five elements—science, substance, story, simplicity, and speed—will be a hallmark of those who thrive in the years ahead, say Gordon and Perrey. The exact shape of this shift will vary by industry, of course. In separate interviews, the marketing leaders of Google and Daimler paint rich pictures of the ways their companies are seeking to move the needle on creativity, analytic rigor, and organizational cohesion for a digital age.

Sales and distribution, too, have been on the front lines of the digital revolution. Web-based tools have been boosting the efficiency and effectiveness of salespeople for years, while data and analytics have

¹ David Court, Jonathan Gordon, and Jesko Perrey, “Boosting returns on marketing investment,” *McKinsey Quarterly*, May 2005, mckinsey.com.

enabled better channel management. At the same time, argue the authors of “Do you really understand how your business customers buy?,” purchasing patterns have become much less predictable, necessitating more sophisticated approaches to understanding customers and influencers, allocating resources, and building partnerships between sales and marketing. For companies selling long-lived assets, it’s increasingly possible to manage and monitor customer value along the entire asset life cycle, thereby creating new opportunities to stimulate growth, say the authors of “A virtuous cycle for top-line growth.”

Although data and analytics are tightly interwoven, with many of the advances taking place in marketing, sales, and beyond, there’s sometimes a mismatch between potential and reality. In “Getting big impact from big data,” David Court lays out fresh ways to exploit recent advances in analytics solutions, self-service tools, and machine learning, while mobilizing the organization to embrace these developments.

The *Quarterly* itself is evolving with the media environment. You might notice that this issue is slightly slimmer. That’s not because we’re producing less content—in fact, you’ll find a growing body of web-exclusive *Quarterly* content on mckinsey.com and the McKinsey Insights app—but because we can get to market faster with more high-impact top-management ideas by focusing first on digital-content creation. We are excited about this shift and more committed than ever to delivering the quality and rigor our readers expect in all of the channels where they read management content. ◉



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Where to look for global growth

Richard Dobbs, Jaana Remes, and Jonathan Woetzel

Productivity gains could make the difference in an aging world.

For the last 50 years, the world economy has benefited from a demographic boom that has contributed 1.8 percent to average annual global GDP increases, helping to generate an unprecedented level of growth.¹ This demographic tailwind is coming to an end. With populations aging and fertility rates dropping around the world, the growth rates of the past 50 years may prove to be the exception, not the rule. The latest research of the McKinsey Global Institute (MGI) suggests that unless increases in labor productivity compensate for an aging workforce, the next 50 years will see a nearly 40 percent drop in GDP growth rates and a roughly 20 percent drop in the growth rate of per capita income around the world.

The potential for diminished growth varies considerably among countries. In the developed world, Canada and Germany are poised for the biggest drops in GDP growth rates. Saudi Arabia, Mexico, Russia, and Brazil are most at risk in developing countries (Exhibit 1). Societies that fail to raise their game for the productivity needed to sustain growth will find it harder to achieve a host of desirable goals, such as reducing poverty in developing economies and meeting current social commitments in developed ones.

But the research also suggests reasons for optimism. Among the countries we studied, fully 75 percent of the needed productivity increases through 2025

Exhibit 1

The demographic drag on growth will vary considerably across countries over the next 50 years.

Projected change in growth rate by 2064, assuming historical productivity growth, %



Source: UN population statistics; McKinsey Global Institute analysis

could occur if lagging companies and public-sector institutions caught up to the productivity of their best-performing peers. Emerging markets have the biggest opportunities to do so. These opportunities are known and currently available, and they represent a critical link in the virtuous cycle of emerging-market development: rising labor productivity goes hand in hand with growth in disposable income, consumption, and GDP.

To close the gap, companies must seize the opportunity to accelerate productivity growth and the value-creation potential it holds, while governments will need to support them by reconsidering regulatory barriers to competition in product and labor markets. While these actions tend to grab less attention than, say, the pursuit of boundary-pushing possibilities (such as artificial intelligence and the Internet of Things), boosting productivity by rethinking regulatory barriers holds enormous potential for the global economy.

MGI's micro-to-macro analysis shows plenty of upside in global sectors such as agriculture, food processing, automotive, retail, and healthcare. As Exhibit 2 shows, the bulk (but by no means all) of these opportunities are found in emerging economies.

Agriculture. Productivity in agriculture, which accounts for only 4 percent of employment in developed economies but for about 40 percent in emerging ones, could more than double by 2025. The largest opportunities for mechanization

and scale are in emerging regions, where, according to UN calculations, nearly 30 percent of crop cultivation is still done by hand. In developed economies—which tend to have larger farms, higher levels of mechanization, and more advanced practices in applying fertilizers, herbicides, and pesticides—further gains are available from technology, including the use of precision sensors and satellite data to increase crop yields.

Food Processing. The manufacture of food and beverages—or food processing—accounts for a range of 1 to 3 percent of GDP in the countries we studied. Globally, the sector's productivity is 20 percent higher than total worldwide productivity, but significant gaps remain among countries. The overall productivity of food processing could rise by an estimated 59 percent, mostly in developing economies, through operational improvements, such as lean manufacturing, and bigger processing facilities to take advantage of scale effects.

Automotive. The automotive sector, which accounts for an estimated 1.6 percent of global GDP, boasts productivity that is, on average, roughly 95 percent higher than that of other industries. Big differences exist among regions, however, reflecting the productivity performance of tier-two and tier-three component-supplier operations. (For example, in aggregate, auto manufacturing in India operates at less than one-quarter of the productivity level in the United States.) MGI estimates that the automotive

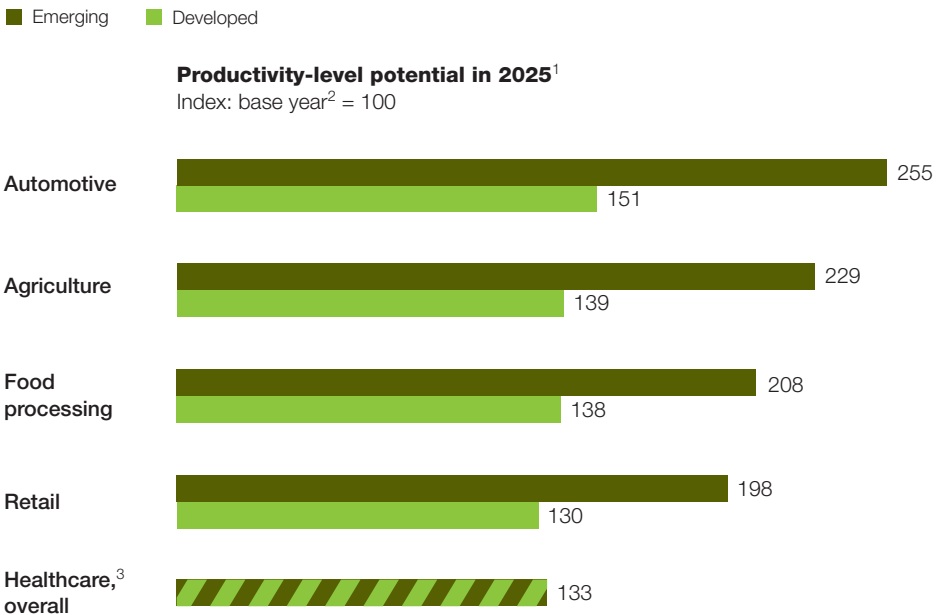
industry could raise its overall productivity by 90 percent as of 2025. The opportunities vary by region. The largest—in China and India, which today employ over 40 percent of all automotive workers—involve greater scale and improved manufacturing processes.²

Retail. In most economies, 5 to 12 percent of all employees work in the retailing industry—and more when wholesale is included—so retail matters. Globally,

productivity in this sector is 30 percent lower than average productivity across all sectors. Retailing is also an industry with large, sustained productivity differences between developed and emerging economies, as well as among countries at similar income levels. The opportunities in the retail sector fall into three broad areas: increasing the share of more productive formats, narrowing the gap between the least and most productive outlets in a particular format, and

Exhibit 2

The biggest opportunities to accelerate productivity growth are in emerging markets.



¹ Estimated for Brazil, China, Germany, India, Japan, Russia, the United Kingdom, and the United States.

² Base year = latest available data. For full methodology, see *Global growth: Can productivity save the day in an aging world?*, on mckinsey.com.

³ Metrics for healthcare outcomes are lacking. Estimates are based on opportunities to reduce costs for delivering the same quality and access while maintaining or improving health outcomes. Underestimates overall productivity potential from increased quality and access. Separate data for developed and emerging markets are not available.

Source: McKinsey Global Institute analysis

improving even the best performers' productivity by using new technologies and processes. These hold the promise of boosting worldwide retail productivity by more than half.

Healthcare. Healthcare spending accounts for 10 percent of GDP among the member countries of the Organisation for Economic Co-operation and Development (OECD) and for an average of roughly 6 percent of GDP in the four leading emerging economies: Brazil, China, India, and Russia. Moreover, total healthcare spending is growing faster than global GDP, heightening the need to deliver healthcare as efficiently as possible. MGI analysis finds opportunities to save nearly 25 percent of overall healthcare spending by 2025, without compromising health outcomes. Countries could realize this potential by catching up to best practices in operations and procurement, by reducing the number of clinically ineffective procedures, and by developing innovative delivery models (notably, providing care outside of hospital settings and using new digital technologies).



Having ample opportunity to improve productivity does not guarantee that we will do so. There is a robust debate about how much growth is actually desirable, given the economic, social, and environmental externalities that rapid change often creates. Yet without growth, the world is a poorer place—and fulfilling social and debt commitments

becomes harder. Business can and should upgrade its capital and technology, pursue innovation, and mobilize talented workers. Governments need to assess whether and how to go on opening up their economies and integrating them into the world economy. Since the rate at which different countries and sectors exploit the opportunities before them is bound to vary, global business leaders will need strong antennae to understand where new opportunities are arising, how to adapt accordingly, and what new competitors they are likely to meet along the way. ○

¹ For a preliminary scoping of the challenge and opportunity, see James Manyika, Jaana Remes, and Jonathan Woetzel, "A productivity perspective on the future of growth," *McKinsey Quarterly*, September 2014. For a fuller treatment of the issues discussed in this article, see *Global growth: Can productivity save the day in an aging world?*, McKinsey Global Institute, January 2015. Both are available on mckinsey.com.

² World Input-Output Database, 2012 release, wiod.org.

Richard Dobbs and **Jonathan Woetzel** are directors of the McKinsey Global Institute, where **Jaana Remes** is a partner.

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Gaps in the worldwide web

Bertil Chappuis, James Manyika, and Kara Sprague

Internet usage has soared in a single generation, but billions of people still won't—or can't—go online.

Despite the web's seemingly inexorable growth, many of the world's people are and will remain offline. Current projections suggest that up to 4.2 billion of them—more than half of the forecast global population—will still lack connectivity in 2017. The three-year compound annual growth rate (CAGR) of Internet users also has slowed, from 14 percent in 2006–09 to 10 percent in 2010–13.

At this current course and speed, market forces, such as rising income levels and lower technology costs, should help bring another 500 to 900 million users online by 2017. But to accelerate this trajectory and to address “the last billion,” we'll need to look beyond the market forces that have driven adoption so far.

At present, 64 percent of offline individuals live in rural areas. As much as half have incomes below the average of their respective countries' poverty lines and median incomes, and about 18 percent are 55 or older. Roughly

28 percent are illiterate, and 52 percent are women. This digitally dispossessed population is concentrated in a small number of places. Around 3.2 billion of the estimated 4.4 billion people who are offline today live in 20 countries, and approximately 2.0 billion in just 10. The four principal barriers to wider adoption are a lack of incentives, low incomes and affordability, insufficient capabilities, and poor infrastructure.

- **Incentives.** Millions of people do not go online, because they lack awareness of the Internet or its uses, do not believe they would find relevant (that is, local or localized) content or services, or believe that going online would be culturally or socially unacceptable. Other deterrents include life stages in which some people—for example, retirees who can no longer use computers in the workplace—find it hard to access the Internet, as well as a lack of Internet freedom and information security, real or perceived.

- **Low incomes and affordability.** Despite the huge strides businesses and governments have made over the past decade to reduce the cost of the devices and services associated with accessing the Internet, it remains beyond the financial reach of impoverished millions.
- **User capabilities.** Hundreds of millions of people can't read and write in any language, according to World Bank data. Millions more lack familiarity with, or the ability to use, even basic digital technologies—for example, by manipulating a device or navigating a website.
- **Infrastructure.** Many people who remain offline live in areas with underdeveloped Internet infrastructure, including limited access to international bandwidth and inadequate spectrum. Many also reside in countries with insufficient infrastructure or information-and-communications-technology strategies that do not effectively address issues of broadband access.

Some barriers will be more readily overcome than others, and some countries might have an easier path to doing so (see exhibit). Populations that are largely urban and literate, as in parts of Latin America and the Middle East, already possess the scale and the inherent

demand for increased connectivity. The main obstacle is economic and must be tackled from two sides. First, because the income of many of the potential users falls below a threshold that allows for even a low level of discretionary consumption, improving the economic circumstances of such individuals will be of fundamental importance.¹ Second, bringing the Internet within reach will require lowering the users' total cost of ownership—including devices, data plans, taxes, and related expenses (such as charging solutions). But even the cheapest devices and data plans must provide a sustainable business model for device manufacturers and network operators.

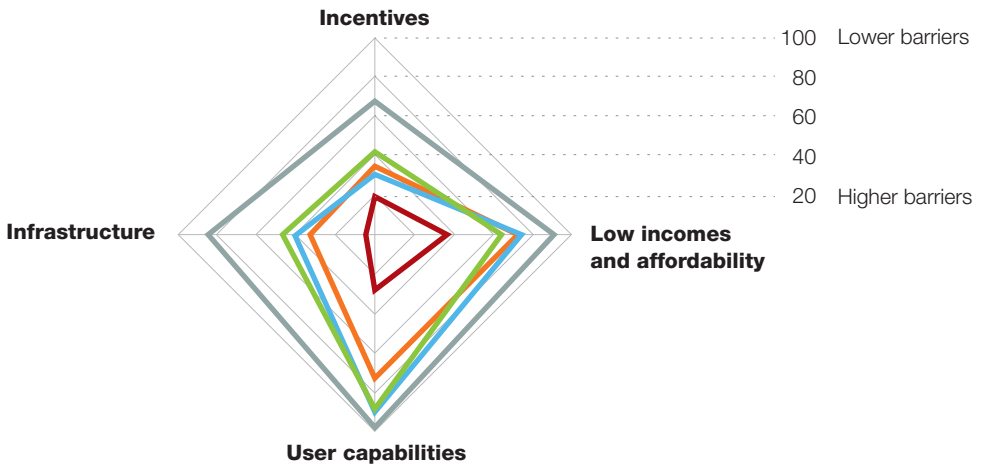
Companies planning to enter or expand in countries where large numbers of people are offline should not assume that Internet penetration will necessarily follow a certain trajectory. The growth rates experienced over the past two decades can't be duplicated where large segments of a population are illiterate or large swaths of a country lack even the most basic infrastructure to support connectivity. Yet in countries with conditions more favorable for Internet use, growth can occur quickly—and well-targeted funding can produce fast results.

What's certain is that a lack of Internet access will continue to act as a drag on

Exhibit

Countries fall into one of five groups based on the barriers they face to Internet adoption.

Average score on the Internet Barriers Index



Characteristics by group for 25 countries studied (2013 data)

	<p>1. High barriers</p> <p>556 million people offline</p> <p>15% Internet penetration</p> <p>Young, rural, with low levels of literacy; challenges across the board</p> <p>Bangladesh, Ethiopia, Nigeria, Pakistan, and Tanzania</p>	<p>2. Medium-to-high barriers</p> <p>1,424 million people offline</p> <p>19% Internet penetration</p> <p>Mixed demographics; challenged by incentives and infrastructure</p> <p>Egypt, India, Indonesia, the Philippines, and Thailand</p>
<p>3. Medium barriers: rural</p> <p>802 million people offline</p> <p>45% Internet penetration</p> <p>Rural and literate; challenged by incentives</p> <p>China, Sri Lanka, and Vietnam</p>	<p>4. Medium barriers: urban</p> <p>257 million people offline</p> <p>49% Internet penetration</p> <p>Urban, literate, and low income; challenged by affordability</p> <p>Brazil, Colombia, Mexico, South Africa, and Turkey</p>	<p>5. Low barriers</p> <p>182 million people offline</p> <p>78% Internet penetration</p> <p>Highly literate, disproportionately low income and female; challenged by digital literacy and affordability</p> <p>Germany, Italy, Japan, Russia, South Korea, Spain, and the United States</p>

Source: World Bank; McKinsey analysis

the economies of unconnected nations. We have estimated that the Internet accounted for about 3 percent of the global economy in 2010.² From 2004 to 2009, it contributed 10 percent or more to total GDP growth in China, India, and Brazil, and this rate is accelerating.³ Countries on the wrong side of the digital divide will confront a growing disadvantage. ○

The authors wish to thank Jacques Bughin, Ferry Grijpink, Lohini Moodley, and Kanaka Pattabiraman for their contributions to this article.

Bertil Chappuis is a director in McKinsey's Silicon Valley office; **James Manyika** is a director in the San Francisco office, where **Kara Sprague** is a principal. This article is adapted from "Offline and falling behind: Barriers to Internet adoption," September 2014, available on mckinsey.com.

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¹ For more on the challenges and opportunities of global consumption, see Yuval Atsmon, Peter Child, Richard Dobbs, and Laxman Narasimhan, "Winning the \$30 trillion decathlon: Going for gold in emerging markets," *McKinsey Quarterly*, August 2012; and Olivia Nottebohm, James Manyika, and Michael Chui, "Guest column: Sizing the Internet economy in emerging countries," *Financial Times*, April 2012, both available on mckinsey.com.

² See *Online and upcoming: The Internet's impact on aspiring countries*, January 2012, mckinsey.com.

³ See *Internet matters: The Net's sweeping impact on growth, jobs, and prosperity*, McKinsey Global Institute, May 2011, mckinsey.com.

A digital imperative for corporate France

Francesco Banfi, Eric Hazan, and Eric Labaye

Catching up with other nations would boost the performance of French companies and could add €100 billion to annual GDP.

The adoption of digital technologies varies significantly, both among countries and between consumers and businesses within them. France is an interesting illustration of the latter point and its economic implications. French consumers are strong users of these technologies. Over 80 percent of households have access to the Internet, and France ranks number one in fixed-broadband penetration among 13 large and advanced nations we studied. The French are fifth among European users of tablets and smartphones, and eighth in their use of online services (60 percent of French consumers buy online).

French businesses, however, are less advanced. Only 14 percent of them used the Internet to handle orders in 2013, compared with 26 percent of German companies. And only 65 percent of French companies have a website, compared with 89 percent of Swedish ones.¹ Continuing digital disruptions, ranging from the Internet of Things to big data analytics, place a premium on rapid adoption.

Executives at nearly half of French companies recently surveyed by McKinsey say they are hindered by structural rigidities, including labor legislation that often makes managers reluctant to undertake the transformative process changes associated with leading-edge digital enterprises.² The lack of a critical mass of digital skills is mentioned frequently, as well. Respondents also cited French profit margins—lower than the European average—as an obstacle to fresh digital investments.

The gulf between consumer and business adoption suggests that French companies can tap a large reservoir of value should they undertake more aggressive digital strategies. To capture that value and to succeed against new digital competitors, French companies will need to adjust their offerings, to provide more personalized digital products and services, and to meet the customer's demand for a more satisfying digital experience. At the same time, they will have to improve their operational

efficiency by automating processes and using analytics to make better business decisions.

To get a picture of the potential gains, we examined five sectors of the French economy, accounting for nearly a third of GDP: retail banking, retail distribution, consumer packaged goods, tourism, and construction, which are at varying stages of digital maturity. Our analysis and our experience with companies across these sectors allow us to estimate the potential bottom-line impact of digital technologies in France. We find that it ranges from a 20 percent decline in gross operating income for companies that can't adapt to intensifying digital competition to a 40 percent gain for companies that undertake a comprehensive digital transformation.

Under a baseline scenario, the digital component of French GDP will continue to grow, from 5.5 percent in 2013 to 7 percent by 2020, representing nearly €180 billion in annual GDP. If, however, the French economy can reach the level of digitization attained by five leading European economies—9.7 percent—the digital portion of GDP would grow to around €250 billion—an additional €70 billion in 2020 GDP. Catching up to the United Kingdom, Europe's leader, with a 10.8 percent digital component in its GDP, would raise French digital GDP to nearly €280 billion in 2020. So €70 billion to €100 billion in additional annual GDP is at stake.

Every economic stakeholder must play a role. Government, for example, needs to show the way by digitizing public administration, and to use policy instruments such as compulsory programming lessons in schools. Schools and universities should step up formal collaboration with enterprises and develop new networks of excellence. Large companies must act as role models for smaller ones, open up data with lower access costs, and consider creating corporate venture funds. Social partnerships can provide “digital coaches” for small and midsize enterprises and earmark training funds for specifically digital purposes. ○

¹ Data from Eurostat (covering 28 countries in Europe) and from the Organisation for Economic Co-operation and Development (OECD).

² Five hundred organizations covering all main sectors of the French economy, including small and midsize companies.

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Digitizing the value chain

John Nanry, Subu Narayanan, and Louis Rassey

Challenges remain for “Industry 4.0,” but the buzz is growing.

Digital manufacturing and design are drawing attention from innovators and investors alike. Sometimes referred to as “Industry 4.0” (especially in Europe) or as the “Industrial Internet” (General Electric’s term), these labels reflect a basket of new digitally-enabled technologies that include advances in production equipment (including 3-D printing, robotics, and adaptive CNC mills¹), smart finished products (such as connected cars and others using the Internet of Things), and data tools and analytics across the value chain.

These technologies are changing how things are designed, made, and serviced around the globe. In combination, they can create value by connecting individuals and machines in a new “digital thread” across the value chain—making it possible to generate, securely organize, and draw insights from vast new oceans of data. They hold the potential for disruptive change, analogous to the rise of consumer e-commerce. In 2010, when some two billion people connected online, the Internet contributed approximately \$1.7 trillion to global GDP.²

What’s in store when 50 billion smart machines—deployed across factory floors, through supply chains, and in consumers’ hands—can connect with one another?

Competitors and policymakers are pooling their efforts to make that happen. In the past year, for example, more than 200 organizations from industry, government, and academia joined in supporting the Digital Manufacturing and Design Innovation Institute (DMDII) to advance digital integration in the manufacturing economy. Participants have committed more than \$200 million to support the DMDII, and the US federal government is contributing an additional \$70 million. Companies such as Caterpillar, GE, and P&G are among the industry partners. But even as the holy grail of a digitized value chain draws closer, industry leaders are expressing some prominent, common concerns.

McKinsey had an opportunity to poll executives at companies participating in the DMDII.³ While 80 percent of

the respondents consider digital manufacturing and design to be a critical driver of competitiveness, only 13 percent their organizations' digital capability as "high" (exhibit). And even among those leaders, many believe that their firms and their industries currently lack necessary standards, data-sharing, and cybersecurity capabilities.

Across industries, executives at several manufacturers identified a need for dramatic improvements in certain software applications. Reporting dissatisfaction with some vendors' products in areas such as computer-aided design (CAD), enterprise resource planning (ERP), and

manufacturing execution systems (MES), these executives cited examples of applications they found too hard to learn, too slow to evolve and adapt, and sometimes too expensive for small businesses. Some systems are also closed—they don't communicate with each other or allow others to build upon them. Achieving the transformative potential from digital manufacturing, by contrast, requires information systems that are open, interoperable, and user-friendly.

Successful implementation of digital-manufacturing solutions entails fluid digital communication across the value

Exhibit

Industry executives report that digital capabilities fall well short of current aspirations.

% of respondents, n = 83

The challenge



What's missing



Source: McKinsey online survey of industry members of the Digital Manufacturing and Design Innovation Institute, in the field from May 1 to May 14, 2014

The aggregation and analysis of data across a product's life cycle can increase the uptime of production machinery, reduce time to market, and make it possible to understand the product's consumers.

chain—this continuous flow of data is the digital thread. In response, a number of legacy software vendors, to their credit, are striving to capture a share of this new market. But it's an open question whether they can move fast enough. The evolution of the consumer Internet does offer some insight for its more nascent industrial counterpart. Today's consumer-based apps and cloud-based software, for example, are updatable, affordable for the masses, and intuitive to use. Manufacturing leaders yearn for design and manufacturing software solutions and for an app-store ecosystem that can reach the same bar.

Enabling individuals and machines to communicate seamlessly would of course make production more cost efficient.

But perhaps more compellingly, digitizing the value chain facilitates innovation and can directly improve the top line. For example, the aggregation and analysis of data across a product's life cycle can increase the uptime of production machinery, reduce time to market, and make it possible to understand the product's consumers. They also make

product innovation less about “tribal knowledge” and gut feeling and more of an exercise in analyzing, testing, and responding to hard data and robust simulations.

To that end, the leaders we surveyed were particularly bullish about the impact of digital technologies on product development and design. When they were asked to rank the specific value-chain areas that would benefit most from digitization, one of the highest was the “design–make” link—including the ability to compare “as designed” intent with “as made” data from factories or to predict the quality of new products by using real-time simulations that leverage actual factory data.

Digital manufacturing is already proving its potential to create value at points beyond the design phase. Coca-Cola applied a flexible packaging process in its “Share a Coke” campaign, in which firms collaborated throughout the supply chain and helped increase the company's soft-drink volumes across world markets. Daimler has rolled out

“Mercedes me,” which, among other features, tracks the usage and wear of key automotive parts to help service automobiles more effectively. (For more, see “Marketing the Mercedes way,” on page 48.) It’s important that the opportunities from digital manufacturing are not just for big corporations. Micro-manufacturers, for example, are using Etsy’s wholesale program as a digital distribution platform to scale themselves up to multimillion-dollar enterprises.

With compelling opportunities across the digital thread, venture-capital firms and other investors will continue to take notice. GE Ventures, for one, opened a Chicago office in 2014, drawn in large part by opportunities to apply digital manufacturing in America’s industrial heartland. Manufacturing remains, after all, a massive driver of the global economy, representing approximately 16 percent of global GDP.⁴ With those stakes, even marginal improvements will unlock significant wealth. ○

¹ Computer numerical control (CNC) mills are machines that cut materials based on programmed commands.

² See “Offline and falling behind: Barriers to Internet adoption,” September 2014, mckinsey.com.

³ The respondents to this online survey, in the field from May 1 to May 14, 2014, were members of the Digital Manufacturing and Design Innovation Institute. They included 83 persons from industry (and spanning at least 45 separate firms), 55 from academia, and 12 from government. This article presents the responses of only the industry respondents. Respondents from academia and government gave similar answers.

⁴ See *Manufacturing the future: The next era of global growth and innovation*, McKinsey Global Institute, November 2012, mckinsey.com.

The authors wish to thank William King, the DMDII’s chief technology officer, for his insights on this topic and for providing access to the DMDII data.

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Do your training efforts drive performance?

Richard Benson-Armer, Silke-Susann Otto, and Nick van Dam

Building organizational capabilities is a top strategic priority, but an inability to measure the impact is a growing concern among executives we surveyed.

Executives around the world are striving to measure the impact of training and employee-learning programs on the performance of business. Half of those who responded to a McKinsey survey last year told us that they see organizational capability building as one of their top strategic priorities, but many said their companies could do better. When we asked respondents about their companies' biggest challenge with training programs, we found that the lack of effective metrics appeared to be a growing concern.

The 2014 survey,¹ analyzing the attitudes and experiences of more than 1,400 executives in all the main regions of the world, followed up a similar study on organizational capability building conducted in 2010. This time, roughly one-quarter of the respondents described their organizations' capability-building programs as "very effective." Slightly over half said that they were "somewhat effective."

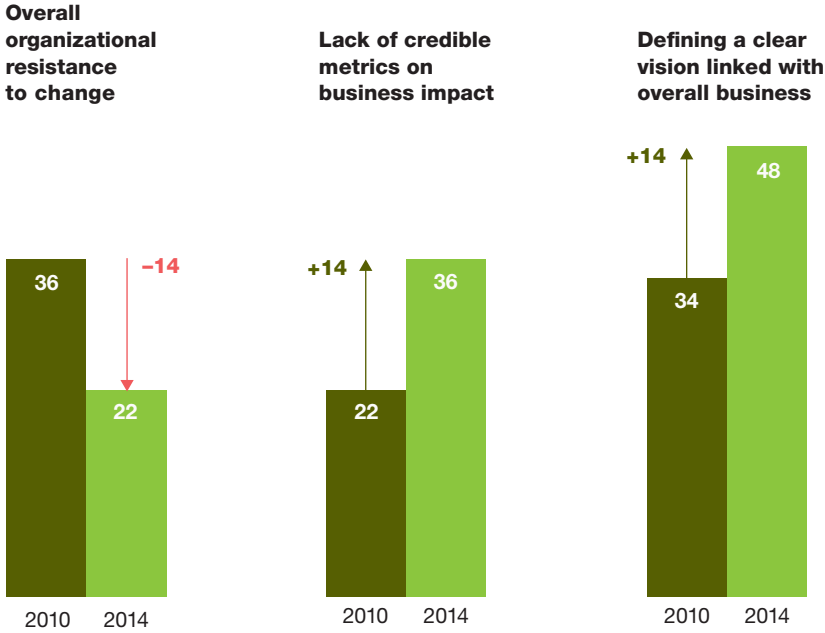
A preoccupation with metrics was one of the most striking changes between the two surveys: in 2014, a greater number of respondents said the lack of credible metrics was a business challenge (exhibit). Almost one-fifth said that their organizations did not attempt to measure the impact of training and learning programs at all; only 13 percent told us that these companies tried to quantify the *financial* return on their learning or training investments.

Such figures might be understandable in the context of general-purpose training without any business objectives. But let's imagine a bank that knows its sales performance could improve if call-center employees were better at identifying unmet customer needs. A range of skills might be relevant to achieve this objective. Assessing which skills really affect sales performance and applying metrics that show how well employees deploy them are critical for allocating training resources effectively and for actually boosting sales.

Exhibit

Resistance to change is down, but defining a vision and metrics for capability building is becoming more of a challenge.

Top challenges in institutional capability building, % of respondents¹



¹ Respondents who answered “other” or “don’t know” are not shown; in 2010, n = 1,440; in 2014, n = 1,448.

What the leaders do

Perhaps the most instructive answers in the 2014 survey came from executives at the 14 percent of organizations who identified capability building as a top-three strategic priority *and* told us that their companies’ learning programs for leaders and frontline staff were “very effective” at preparing them to improve business performance. These executives were much likelier than others to say

that their companies use a range of both qualitative and quantitative metrics to assess the impact of programs and were generally better at meeting the stated targets.

Significantly, this group also attached greater significance than the others to cooperation between the human-resources function and the business units. This finding is consistent with our experience that the impact of learning

on business results is greater when both sides “co-own” it. A US-government agency, for example, found that tailored programs jointly operated by training specialists and experts (in functions ranging from operations to engineering) helped identify opportunities to save more than \$1.7 billion.

Innovation and accountability

Such co-ownership may be achieved through a variety of different structures. Some organizations create corporate academies. One of Asia’s largest petrochemical companies, for example, recently established a corporate “university” staffed with HR personnel, with functional and business heads serving as “deans.” The latter not only design the company’s programs but also implement them. Other organizations create learning functions that report both to HR and the businesses.

HR and learning specialists need to take the lead in developing assessment processes and competency maps. They should also assume responsibility for integrating learning and development with the overall talent-management system: performance assessments, role definitions, career pathways, and the like. Sharing responsibilities—with HR guiding the “how” and the businesses the “what”—has a number of practical advantages, starting with the greater relevance of the resulting programs to

the actual work of employees. That, in turn, improves a program’s credibility and effectiveness, thereby encouraging additional investment. When senior leaders become more confident about a program’s contribution to business performance, they start thinking, as they assess strategic choices, about potential capability gaps and become better able to estimate the potential value of filling them. ○

¹ For the full range of survey results, see “Building capabilities for performance: McKinsey Global Survey results,” September 2014, on mckinsey.com.

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Pharmaceuticals

The value of being first to market

Myoung Cha and Flora Yu

Our research in the pharmaceuticals industry suggests that in some cases, it may be less than you think.

Companies often race to beat their competitors to market, believing that every month of lead time counts. Our analysis of pharmaceutical companies' product launches¹ found only a weak benefit from being first to market—on average, first movers enjoy a market-share advantage² of six percentage points over later entrants ten years after launch. In many instances, the first-mover edge actually vanishes, particularly when the lead time is short (less than two years) or when the first mover is a small company. In more than 50 percent of the drug classes we evaluated, late movers were the winners; this was particularly so when the late mover was the second entrant to the market, a fast follower (launched within the same year or one year after the first entrant), or had its product marketed by a large company.

As the exhibit shows, context matters a lot. These findings offer several lessons for pharma companies—and maybe for other industries as well. One is that unless the first mover is a well-resourced and experienced player with a long lead time, being the best can be more

important than being the first. This can make clinical development and commercial strategy just as important as the timing of the initial regulatory approval. Another lesson is that smaller companies that lack experience and scale should consider partnering with large pharma companies. In short, the first-mover advantage can be formidable but not insurmountable. ○

¹ We analyzed 492 drug launches in 131 classes over the 27-year period from 1986-2012. We filtered for those drugs that generated more than \$100 million in annual sales and had one or more competitors during their patented life. Then, to assess the impact of order of entry on a class, we analyzed market share (measured by sales) for each entrant in the tenth year after the launch of the first drug.

² We determined market-share advantage by calculating 100 percent market share divided by number of entrants, and then comparing an individual company's actual market share against that average.

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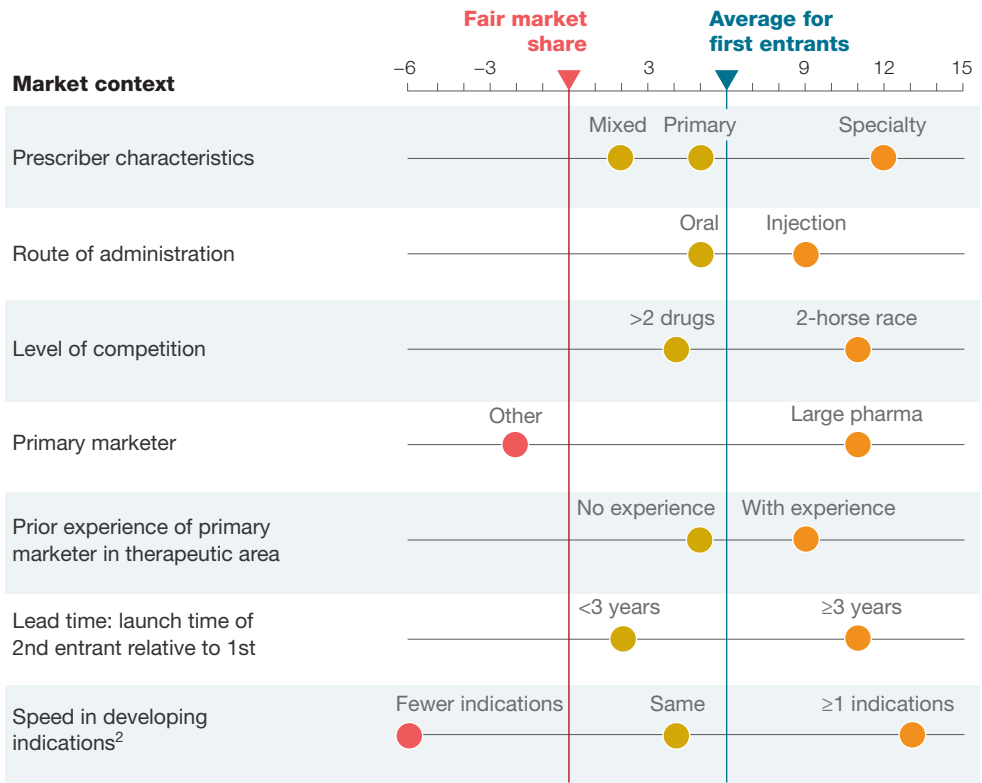
For a more complete discussion of this research, see *Pharma's first-to-market advantage*, on mckinsey.com.



Exhibit

Depending on context, the advantage of a drug being first to market may vary widely.

Market-share advantage of first movers ten years after launch, difference in percentage points relative to fair market share,¹ n = 492 drug launches, 1986–2012



¹ Calculated as 100% market share divided by number of entrants.

² Difference in number of indications between 1st and 2nd entrant 5 years after first launch in class.

Source: EvaluatePharma

Modern marketing

Marketing has come a long way in the past decade—from a crisis in confidence, as technology transformed the media and messaging environment, to a leadership role in many companies' digitization efforts. This package presents five keys to success in the new era, along with state-of-the-art insights from the marketing leaders of Google and Daimler.

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The dawn of marketing's new golden age

Jonathan Gordon and Jesko Perrey

Marketers are boosting their precision, broadening their scope, moving more quickly, and telling better stories.

Science has permeated marketing for decades. Fans of the television drama *Mad Men* saw a fictionalized encounter when an IBM System/360 mainframe computer physically displaced the creative department of a late-1960s advertising agency. In reality, though, the 1960s through the early 1990s witnessed a happy marriage of advertising and technology as marketers mastered both the medium of television and the science of Nielsen ratings. These years gave birth to iconic advertising messages in categories ranging from sparkling beverages (“I’d like to buy the world a Coke”) to credit cards (“American Express. Don’t leave home without it”) to air travel (“British Airways: the world’s favourite airline”).

Until recently, marketers could be forgiven for looking back wistfully at this golden age as new forces reshaped their world into something completely different. These new trends include a massive proliferation of television and online channels, the transformation of the home PC into a retail channel, the unrelenting rise of mobile social media and gaming, and—with all these trends—a constant battle for the consumer’s attention.

The resulting expansion of platforms has propelled consistent growth in marketing expenditures, which now total as much as \$1 trillion globally. The efficacy of this spending is under deep scrutiny. For example, in a survey of CEOs, close to three out of four agreed with the following statement: marketers “are always asking for more money, but can rarely explain how much incremental business this money will generate.”¹ Chief marketing officers (CMOs), it appears, don’t disagree: in another recent survey, just over one-third said they had quantitatively proved the impact of their marketing outlays.² Paradoxically, though, CEOs are looking to their CMOs more than ever, because they need top-line growth and view marketing as a critical lever to help them achieve it. Can marketers deliver amid ongoing performance pressures?

In this article, we’ll explain why we think the answer is yes—and why we are, in fact, on the cusp of a new golden age for marketing. At the core of the new era are five elements that are simultaneously familiar and fast changing. The first two are the *science* and *substance* of marketing. Leading marketers are using research and analytics to shed light on who buys what, and why; who influences buyers; and when, in the consumer decision journey, marketing efforts are likely to yield the greatest return. That understanding, in turn, is making it possible for marketers to identify more effectively the functional benefits that customers need, the experiences they want, and the innovations they will value.

But this isn’t just another missive on the power of big data. Organizational *simplicity* is fueling *speed*, and *story* is pulling things together while inspiring both the customer and the organization. Happily, the story just seems to get better as creative minds express themselves

¹ For results from a survey of 600 CEOs and decision makers conducted by the Fournaise Marketing Group, see “73% of CEOs think marketers lack business credibility: They can’t prove they generate business growth,” FournaiseTrack, June 15, 2011, fournaisegroup.com.

² See “Chief marketing officer optimism at four-year high; proving the value of marketing remains elusive,” blog entry by Christine Moorman, The CMO Survey, August 27, 2013, cmosurvey.org, for results from a survey of 410 CMOs, conducted by Duke University’s Fuqua School of Business with the American Marketing Association and McKinsey & Company. For a further discussion of measuring marketing ROI, see Jean-Hugues Monier, Jonathan Gordon, and Philip Ogren, “How CMOs can get CFOs on their side,” *Harvard Business Review*, November 25, 2013, hbr.org.

through digital means, and it then echoes and expands through social media and user-generated content. As you'll see, the emerging new rules for marketing extend well beyond data and analysis, crucial though those are, and even transcend the marketing organization itself.

Science

Advances in data, modeling, and automated analysis are creating ever more refined ways of targeting and measuring the returns on marketing investments, while generating powerful new clues about why consumers behave as they do. Long gone is spending guided mostly by intuition and focus groups. Instead, organizations are seeking greater precision by measuring and managing the consumer decision points where well-timed outlays can make the biggest difference.

Big data is a term that's often used to describe this transition. But it's not just big data; it's also big research. A major consumer company investigating the decision journey for its products recently undertook a consumer study, collected through online surveys, on a massive scale and at a speed that would have been unimaginable in the days of mall-intercept interviews. The project, which involved more than 10,000 surveys over the course of a month, uncovered material differences between how the company and consumers were thinking about the category, while also explaining what drives choice at each stage of the journey. These insights are now being used to change brand strategy, product-portfolio design, and marketing campaigns. The potential impact runs into billions of dollars in additional revenue.

While much recent marketing science has played out in the measurement and targeting of advertising and promotion expenditures, many consumer companies are increasing their focus on in-store behavior: how promotions, traffic flows, and physical engagement with products affect sales. Capturing and analyzing data on such issues has become more feasible in recent years thanks to low-cost sensors that can be embedded in products, as well as the ability to capture and analyze huge amounts of unstructured data from store videos—and even to track shoppers' eye movements.

The impact goes beyond marketing and product teams. Marketing science is boosting the precision of real-time operating decisions. At a major hospitality company, marketing analysts are able to get a read on the performance of a particular property or category over a weekend and then drill down on individual customer segments to assess how to make improvements. If the data show that a profitable segment of weekend travelers are shortening their stays, the company can create special offers (such as late checkouts or room upgrades) to encourage repeat business.³ Or consider how one industrial-products company revamped its highly fragmented portfolio of more than 500 SKUs sold to customers in a diverse set of industries. Prices varied widely even for the same products, without any clear reasons as to why, hindering efforts to manage margins. An analytical tool that could scan 1.3 million transactions helped the company redraw customer segments, identify products with opportunities for pricing flexibility, and recommend new prices. Ultimately, it reset about 100,000 price points.

More scientific marketing means that CMOs and other senior leaders need enhanced analytical skills to exploit data possibilities more fully and stay ahead of the whirl of developments. One CEO we know believes it's time to create a position—marketing technology officer (MTO)—that's rooted both in technology and domain knowledge. Knowing what can be automated, when judgment is required, and where to seek and place new technical talent are becoming increasingly central to effective marketing leadership. That is intensifying the war for specialized talent as traditional marketing powerhouses bid against high-tech companies for needed skills.

Substance

As more advanced marketing science and analytics take hold, they are making it increasingly natural for marketing to go beyond messaging and to shape the substance of the business, particularly the experiences of customers, the delivery of functional benefits, and the drive to develop new products and services. Armed with information about customers and a company's relationships

³ Peter Dahlstrom, Chris Davis, Fabian Hieronimus, and Marc Singer, "The rebirth of the CMO," *Harvard Business Review*, August 5, 2014, hbr.org.

Five elements that catalyze great marketing

01

Sc
Science

Advances in data, modeling, and analysis allow precise measurement and management of customer decisions and more targeted spending.

Marshal big data and analytics for insights into choices along decision journeys.

Use data from sensors and video that track in-store behavior to improve merchandising.

02

Su
Substance

Marketers can directly shape the business by evolving the customer experience and the development of products and services.

Harness consumer desires and needs to provide functional benefits—from auto safety to shopping convenience.

Make the case for customer-care initiatives and for consistency in the customer experience.

03



St Story

The ways to tell a story are morphing continually, drawing on richer digital interactions and more powerful communications tools.

Learn to relinquish control of stories as customers interpret and modify them on social media.

Understand how to best access creativity given talent scarcity and evolving relationships with advertising agencies.

04



Sp Speed

Consumer preferences, market dynamics, and product life cycles change with stunning velocity in a digital economy.

Develop the management skills and organizational clout to bring cross-functional teams together swiftly.

Achieve a shared vision with product developers to facilitate a speedy response to market changes.

05



Si Simplicity

Complexity is the enemy of speed and leading marketers are seeking greater simplicity.

Reduce or eliminate hierarchies, silos, communications gaps, and redundancies within the organization.

Simplify working relationships with advertising and other media agencies.

with them, the CMO is well-positioned to help differentiate its products, services, and experiences.

That's good, because digital innovation, transparency, and customer-centricity have raised expectations across the board. In automobiles, as sensor technologies proliferate and onboard computing power increases, consumers are now starting to expect that collision-avoidance and digitally-enabled safety systems will become part of manufacturers' offerings. (Luxury carmakers already are making sophisticated safety options part of their marketing story.) In retail, brands like H&M, Topshop, Uniqlo, and Zara have harnessed the consumer's desire to have it all by bringing mass-market prices to the colors, fabrics, and designs of high fashion. Simultaneously, Amazon and other digital players are pressuring brick-and-mortar retailers, which are responding both by retooling their supply chains to enable faster restocking and one-day delivery and by creating new advertising messages around the in-store pickup of online orders.

Marketers are well placed to help their organizations meet the rising bar by, for example, making the case for customer-care initiatives and for consistency in the customer experience. A better one became the heart of a marketing campaign at European energy supplier Essent, a subsidiary of RWE. To ensure that the company delivered on the promise, the CEO named the chief of marketing to lead the initiative. Among the successes: making customer onboarding less cumbersome by cutting process steps from seven to two. Marketing also took the lead in efforts to create new products that customers wanted. The CMO led a cross-functional team of sales, IT, and product development to produce Essent's smart, Internet-connected E-thermostat, for instance. Some of its functionality was cocreated with customers.

Similarly, marketing has taken a leadership role in designing and setting standards for Daimler's highly digital customer-experience brand, "Mercedes me." The digital platform provides customers with automated appointment booking, personalized financing, a chance to cocreate ideas, access to maintenance data from sensor-enabled automobile diagnostics, and even quick access to Daimler's car-sharing and taxi services—for use on business trips, for example. (See "Marketing the Mercedes way" on page 48 for more on the role of marketing at the company.)

These efforts and many more like them are extending marketing into the guts of the business, and most would not have been possible just a few years ago. The power of today's digital tools and the scientific approaches they make possible are not only enabling a more substantial role for marketing but also giving it opportunities for real-time impact.

Story

Even as marketing reaches new heights with technology-enabled measurement, the importance of the story hasn't diminished. But ways to tell it are morphing continually as the stuff of storytelling encompasses richer digital interactions, and mobile devices become more powerful communications tools. In this world, creativity is in greater demand than ever.

Google's "Dear Sophie" advertisement is an example of the modern art form. It tells the story of a father writing to his daughter as she grows up, with the narrative demonstrating how Google search, Gmail, and YouTube can be new channels of human connectivity.⁴ (For more on how Google seeks to connect, see "How Google breaks through" on page 42.) P&G's "Pick Them Back Up" spot for the Sochi Olympics (part of the ongoing "Thank You, Mom" campaign) is another moving story. It dramatizes the moms who were there for their kids throughout the years of hard training, who picked them up when they fell, and who deserve celebration as the unsung heroines. It's hard to watch these commercials and not tear up, at least a little.

Chanel's recent launch of the new No. 5 perfume offers a good window on how stories are evolving beyond traditional video. Over a decade after their first collaboration, creative chief Karl Lagerfeld has again partnered with film director Baz Luhrmann to produce a short film on a woman whose lifestyle embodies the brand. Their latest effort—"The one that I want"—stars model Gisele Bündchen and features the perfume, along with clothing and other Chanel products. Beyond the film itself, a series of YouTube videos extend the campaign

⁴ Google, "Dear Sophie" video advertisement, BBH New York and Google Creative Lab, 2011, youtube.com.

with shorts on the making of the film, interviews with Luhrmann on both projects, behind-the-scenes footage from Chanel's studio, and more.⁵ All of this is designed to amplify the lifestyle message of the fragrance's launch in a way that traditional TV or print couldn't accomplish.

New media also dictate that marketers relinquish control of the story as digital interactions with customers become more frequent. Customers want to interact with stories and modify them on social media. Following the kinds of story rules that once made board members and CEOs comfortable is no longer feasible. Social-media programs are consuming a larger share of many marketing budgets. A number of major consumer companies are using interaction centers to monitor and participate in social-media conversations as they develop, sometimes including the promotion of discussions on corporate social-media channels.

Agency-management issues also are an important piece of the puzzle. Talent scarcity, evolving digital storytelling, and perceived institutional rigidities have opened new debates about the best ways to access creativity. Some companies, like Chanel, are enhancing their control over the story with supplemental digital content. Other global marketing leaders are bringing in-house more of their story muscle, particularly when it involves lighter message content for social media. Agencies are responding. Many are acquiring more digital talent and working to break down silos to overcome perceptions that they are actually geared to bigger productions and may lack the digital and story skills to handle new content in an agile, integrated way. All this is very much in flux, suggesting that leaders who aren't asking fundamental questions about the roles of (and fit between) agencies and internal marketing teams stand the risk of being left behind.

Speed

In a digital economy, marketing is no longer a "batch" process but a continuous one. Consumer preferences change with stunning

⁵ Chanel, "The one that I want" campaign video advertisements, Bazmark, 2014, youtube.com/chanel.

velocity, as do the dynamics of markets and product life cycles. This culture of urgency means that marketers need a new agility, plus the management skills and organizational clout to bring other functions together at a higher clock speed.

How speed is achieved, of course, will vary by company and industry. A number of CMOs we know are setting the terms of how functional units should collaborate and spelling out what the entire organization needs to know to get new products to market at a stepped-up pace. In these cases, marketing becomes the glue across the organization, providing oversight and coordination.

To speed up its digital tempo, Nestlé's marketing organization launched digital-acceleration teams. These specialists train business units and functions in the skills needed to be effective in digital marketing and social communications. Nestlé's country units have adopted the approach, as well, allowing them to adapt the digital training to local market conditions, while adhering to core, company-wide standards.⁶

At Google, lead times for new products are continually shrinking. Internal teams are attuned to putting products in front of consumers and then, in real time, to bringing back insights in a cycle of testing, learning, and iterating. Marketers are central to this process: they work to develop close relationships with product-development teams in order to inject their knowledge of user needs into how products are developed. That helps create a vision of the product from the user's eyes, and one that engineering teams are eager to create. Achieving that shared vision between product developers and marketers is a key element of speed in formulating new products and features. The time-to-market benefits of better information and more fluid collaboration extend to a wide range of companies, sectors, and business functions. Consider, for example, how data and collaboration are increasing the speed and agility of B2B sales teams. (For more, see "Do you really understand how your business customers buy?" on page 74.)

⁶ See Pete Blackshaw, "How digital acceleration teams are influencing Nestlé's 2,000 brands," interview by Michael Fitzgerald, *MIT Sloan Management Review*, September 22, 2013, sloanreview.mit.edu.

Simplicity

Complexity is the enemy of speed, which is a big reason why a number of leading marketers are reforming their organizations. Too often, expanding geographic footprints, product proliferation, and new arrays of channels and digital specialties have led to complex hierarchies, silos, communication gaps, and redundancies. But these can be tamed.

For example, one telecommunications company realized that a cumbersome organizational structure was getting in the way of delivering the top-notch customer service that the CEO had designated as a strategic priority. He created a unit combining existing call centers and a newly formed social-media customer-care group. The leader of the unit reports directly to him. Proximity to the top of the company allows the new team to collaborate more smoothly across the organization, while signaling the importance of the customer experience.

Many consumer marketers are using technology to reduce complexity. They are embracing internal social-media platforms to encourage the generation and sharing of ideas, which helps speed up problem solving across the organization. Daimler, meanwhile, reorganized its marketing and sales departments around the idea of the “best customer experience.” It created a new customer-experience function bundling several headquarters functions into one that maps the entire customer journey, with the goal of locking in a consistent brand experience throughout the world.

Simplifying working relationships with advertising and other media agencies is another goal for many marketing organizations. Trade-offs abound: specialist agencies have expertise in new digital-content formats and delivery channels, but they aren’t always full-service shops. Larger agencies offer more services, but the strengths of many still lie in traditional media. Marketers building teams of employees with strong skills in digital content and delivery are bringing more activities in-house, but bulking up can create complexity and slow things down. And of course, simplicity can’t come at the expense of great creative output.



In our work with global marketers, including many leading-edge practitioners, we are seeing significant progress in each of these five dimensions. As you think about the implications of science, substance, story, speed, and simplicity for your organization, we suggest that you ask yourself five questions:

1. Are we taking advantage of the science of data and research to uncover new insights, or are we working off yesterday's facts, assertions, and heuristics?
2. Do we fully exploit the power of marketing to enhance the substance—that is, the products, services, and experiences—we offer our customers, or are we just selling hard with a “me-too” mind-set?
3. Do we have a clear brand story that echoes through cyberspace, or do we feel that we aren't quite capturing hearts and minds?
4. Have we created simplifiers within our organization, or have complex matrices become a logjam?
5. Are we faster or slower to market than our competition?

Although this may seem like a lot to handle, the rapid changes and fast-breaking opportunities facing marketers in the 21st century suggest to us that the best ones will have good answers to all of these questions. In our opinion, those that do will not only enjoy above-market growth, they will define the next golden age of marketing. ○

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How Google breaks through

Lorraine Twohill, Google's senior vice president of global marketing, describes what has and hasn't changed for marketers trying to connect with customers.

Lorraine Twohill has made a career of pushing frontiers and forging connections. A 1992 graduate of Dublin City University, she spent a decade building brands for organizations across Europe. In 2003, Google tapped Twohill for its growing EMEA business, and in the process made her their first non-US marketing hire. Twohill advanced steadily from there; in 2009, she was named global head of marketing and then, in 2014, senior vice president of global marketing.

Twohill recently sat down with McKinsey's Jonathan Gordon to share her views on a new inflection point in marketing. What new technologies are arising, which best practices are emerging, and what fundamentals still hold true since marketing's first golden age?

The Quarterly: *Has marketing changed fundamentally since the first golden age?*

Lorraine Twohill: The core assets that were so important in the first golden age are as important today: a great central thought, great writing, great creativity. Back in the '60s, TV was coming onboard but all the work was in print. And the brilliance of print is that you have to have a really great thought and great writing. The bar isn't any lower today. You have to have authenticity, a great central thought. Those same skills that were needed back then are as critical today.

The way I think about marketing—and the way I tend to talk to my team about it—is “knowing the user, knowing the magic, and connecting the two.” Knowing the user means understanding who your consumers are, who your customers are. Not just knowing who they are, but what they need, what are their deep insights, and understanding how we can help them. Knowing the magic means knowing what’s in the hearts and minds of your engineers and your product managers, and what they’re building. Connecting the two means bringing the magic built by engineers to the world in a way that is relevant, meaningful, and compelling to the everyday consumer. So we create something that the world will be excited about.

The Quarterly: *What does the digital side allow you to do that you couldn't do before?*

Lorraine Twohill: The beauty of marketing today is that we can really show the return. The data allows us to demonstrate impact in a much more transparent way than in the past. It’s measurable, and we focus a lot on that. We’re very rigorous about the modeling we put in place and the tracking of our campaigns. Impact matters, results matter, tracking matters.

And I think right now we’re at a very interesting inflection point. The tools available to marketers today are extraordinary. They know far more about their consumers than ever before. They are able to have a much more meaningful, two-way conversation. It’s definitely the golden age for marketing in many ways.

We are excited about the automation of media planning and buying through the use of data and algorithms—what’s known as “programmatic.” I’ve challenged my team to hit a target of 60 percent for our display marketing via programmatic. You still have to define your audience but it is now much simpler to deliver the right message to the right person at the right time with precision. There are fewer wasted ad impressions. It’s also better for users because I’m not frustrating them with ads that aren’t relevant. And since it takes a lot of the grunt work out of media planning, it frees my team to focus on creativity.

The Quarterly: *How so?*

Lorraine Twohill: Google has a very data-led culture. But we care just as much about the storytelling and the brand, and how we tell the world about our mission. So I have found that getting the storytelling right—and having the substance and the authenticity in the storytelling—is as respected internally as the return and the impact. And with the use of the analytic tools we have, the storytelling becomes more important than ever. If anything, there's too much talk about the science right now. I have a colleague who is writing a paper on the future of marketing: it's data, data, science, science. I'm like, "It's not!" Or rather, it is those things, yes. But if you fall down on the art, if you fail on the messaging and storytelling, all that those tools will get you are a lot of bad impressions.

The Quarterly: *How do you approach the messaging and the storytelling, especially given the challenges of proliferation? How do you break through the clutter?*

Lorraine Twohill: We start with the user, and we focus on what we call "one real user." You have to think about the consumer as a human being. What matters in his or her life. And, honestly, you do not wake up in the morning and think, "I need a new browser today," for example. You wake up in the morning and worry about getting your kids to school and paying your mortgage and saving for the future.

If we are going to interrupt you with something that we think is important to you, we have to find a way to tell you about it so that it resonates with you. There has to be a benefit to you. There has

You do not wake up in the morning and think, 'I need a new browser today.' You wake up in the morning and worry about getting your kids to school and paying your mortgage.

to be substance. So, we tell real-life stories. We say, “Listen, your life will change because our product will do this.” Or “Your life just got better because now you can have this.” We don’t do the storytelling unless we have that. Before we get into storytelling, we’ll sit with the team and say, “Okay, why does the world need this? What is going to change in a person’s life if they have this? What’s unique about this? What’s truly great about it?” There has to be substance there.

The Quarterly: *That’s interesting; we’ve also identified “substance” as one of the leading elements of marketing’s new golden age—along with science, storytelling, speed, and simplicity.*

Lorraine Twohill: Substance is really important. And I think that’s what gave marketing a lot of its bad name in the ’80s and ’90s. There was an awful lot of hype without substance. And a lot of exaggeration. You know: big hair, big everything.

Our engineers have a real sense of purpose and they care about building products and features that have substance and will make a meaningful difference in people’s lives; for example, look at **the impact of search in giving people all over the world access to information.** So that makes my job a lot easier and it gives my team something real to talk about. For example, Gmail launched the promotions and social tabs because we realized everybody’s inboxes were getting flooded with promotional emails and social-media emails. So we created two tabs where they all just immediately go: “Job done.” And people just loved that—a little feature for a mature product that people went nuts over because it was a real pain point. We call them “toothbrush problems.”

The Quarterly: *Toothbrush problems?*

Lorraine Twohill: Toothbrush problems—small problems, pain points—like you brush your teeth twice a day. But they are recurring problems, and we should just make them go away. And at the same time, we also look at big problems, like the deaths on the road from cars; whereas if you had driverless cars, that problem would go away. We look at what we can solve, from everyday toothbrush problems all the way up to epic problems.

The Quarterly: *Would you say, as well, that achieving the best customer experience means not only getting better at telling stories to the customer, but also getting better at listening?*

Lorraine Twohill: Certainly. I think that should be marketing's role in the company—to really be the champion of the consumer, the face of the user internally, and the guardian of the user's best interests and the user's needs.

We can put products in front of people and get consumer insights back almost in real-time. We can test and iterate, test and learn. Even more traditional companies can now exist in the digital world, and be smart about how they use the Internet as a great focus group. You can more quickly get user insights, and reach more people. And we can very quickly get that feedback to the teams as they go through their evolutions of a product. Then we bake that feedback into the product as it gets better.

The Quarterly: *And yet, there is still room for disagreement and creative judgment.*

Lorraine Twohill: Storytelling is the ultimate example of creative judgment. And in my view, the one thing you cannot train marketers on is creative judgment. You can train on most other things. But the folks who have great creative judgment—and you really know it when you see it—are few and far between. You can have principles and guidebooks and frameworks and brand guidelines. You can have the whole kit and caboodle. But just innate gut instinct, brilliant, creative judgment—that's what we look for, and that's where you see results.

The Quarterly: *How do you make sure your marketers stay in touch with prevailing trends?*

Lorraine Twohill: Well, you have to look at the world around you. You have to leave the building. Not enough folks do that; too many become very internally focused. They're in management team meetings; they're working with cross-functional teams. But you have to go out and look at the world around you—see the people, how they use your products, go into homes, walk around the city. No matter where I go in the world, I don't just go somewhere for meetings.

For example, if I go to Tokyo, I won't sit in the office for two days and fly back. I'll take a half a day to walk that city. You don't understand the idea of paying with a phone until you actually pay with a phone. You walk into any store in Tokyo, *beep*, and it's done.

I'll also take the most junior folks on the team and say, "Where do you hang out, where do you shop? Put me around your neighborhood. Take me to where you buy your groceries. Show me what you're excited about." They love this! And I learn so much from them—I come back bursting.

The Quarterly: *It's a smaller world.*

Lorraine Twhill: And a faster one. You know, it's not a two-year lead time for a Google product. It's much quicker. Being able to bring insights to the table, consumer insights, in real time and get insights back in—being able to test and iterate, test and iterate—is extremely important. We also like to keep a healthy sense of urgency, the feeling of being on a small, multifaceted team up against the odds. Usually, that's drawn from our own people: engineers, creative, and product managers. It's very creative because engineers are creative at heart. And when you bring creatives together with engineers, you get phenomenal ideas and phenomenal thinking.

The Quarterly: *What's it like working with engineers?*

Lorraine Twhill: It means marketing needs to raise its game. Engineers look at the world in a different way than the rest of us. They see things that are broken and want to fix them. They're big visionaries, big thinkers, because they have huge imaginations. They think of crazy ideas and go build them. You have to be as good as that. You have a seat at the genius table with people that can code, people that are creative, and are extraordinarily talented. To have a seat there, you need to raise your game. ○

Lorraine Twhill is Google's senior vice president of global marketing. This interview was conducted by **Jonathan Gordon**, a principal in McKinsey's New York office.

Marketing the Mercedes way

Ola Källenius of Daimler discusses the high-tech and high-touch marketing of an iconic brand.

Ola Källenius is a self-confessed “car guy” who still harkens back to being “that kid with the dream of driving that Mercedes star.” The Swedish-born Källenius joined the then Daimler-Benz AG in a management associate program in 1993, was named executive director of McLaren Automotive in 2003, and became a member of the Divisional Board of Mercedes-Benz Cars, responsible for marketing and sales, in 2013. In January 2015, Källenius was appointed to the Board of Management of Daimler AG. At age 45, he is the youngest member on that governing body. In a recent conversation with McKinsey’s Jesko Perrey, Källenius shared his views on what’s driving the future of marketing, particularly at the luxury end.

The Quarterly: *Has marketing changed fundamentally since the first golden age?*

Ola Källenius: It has become a more challenging game, but I would say that some of the basics are still the same. You need an attitude, a story. You have but two buttons to push—emotion and intelligence, heart and mind.

The Quarterly: *This suggests that analytics alone won’t supplant traditional storytelling.*

Ola Källenius: One thing I want to stress, because everyone tends to talk just about the digital side, is that in the world of modern luxury it's not all digital. It's human touch. That's equally important as digital—more important, in a way. Think about other luxury brands, like Hermès and Louis Vuitton. Look what they're doing: they're building flagship stores that are beautiful, where you actually like to just browse around before you buy. Those are emotional places. So let's not believe that, even for younger people, this side does not count. It does. At the same time, people want seamless integration between the physical side and the digital side.

The Quarterly: *What does the digital side allow you to do that you couldn't do before?*

Ola Källenius: Here's one example where big data has actually changed the way we're doing business: car2go.¹ We know everything that happens to those cars, 24/7, around the year. If you start analyzing that data, you can see patterns. You can see, for instance, that between 8:00 and 10:00 in the morning, in different cities, there is a likelihood that somebody picks up a car, drives somewhere, and is in a certain “neighborhood A.” So we can make sure there are more cars in that neighborhood during those hours.

We can also improve the customer experience so there is a one-to-one relationship with the customer. That's what we do now with “Mercedes me,” which allows our customers to have a unique Mercedes ID. This allows seamless integration between your smartphone and your car, and between us and our vehicles. We know, for example, how your brake pads are wearing. That data lets us know when a car needs service even before the customer does, so we can prompt a service appointment.

The Quarterly: *How important is it for you to connect within the organization—to integrate marketing into product development, for example?*

Ola Källenius: We have completely reorganized our marketing and sales department instead of having different things in different areas, and have created what we call “best customer experience.”

¹ Daimler's car-sharing provider, car2go, offers point-to-point rentals in selected European and North American cities.

You can't do marketing well in isolation. You have to have engineering with you, and you have to have IT with you—otherwise it doesn't work.

We bundle the different areas inside our headquarters function, which does the blueprint for the whole customer journey. We now have a steering committee with our telematics people and entertainment people and IT people sitting together because you can't do marketing well in isolation. You have to have engineering with you, and you have to have IT with you—otherwise it doesn't work.

The Quarterly: *How else are you working to provide “best customer experience”?*

Ola Källenius: Another way we're achieving the human touch is building on Apple's idea of the “product genius.” It's a role, in the retail network, that is not a sales role, so customers don't have the pressure of the transaction when they speak with this person. We call the role our “product concierge.”

The product-concierge role is solely to help our customers understand the product before the sale, after the sale, and after they have left the lot. So if you've purchased your new S-Class, the product concierge explains the car to you, and you kind of understand how it works. But now you've driven off, and you're sitting there with the telemetric system, and you forgot how to activate your Mercedes-Benz apps, for instance. You call the product concierge, and he or she will explain it to you.

This is just one example of a role that didn't exist previously at a car dealer and almost didn't exist anywhere. We've improved the customer experience by eliminating the pressure of the transaction. Hamburg was our pilot for that. Now, we're training 500 product concierges in China as we speak.

The Quarterly: *Is this also a response, in part, to the challenge of proliferation? How do you break through the clutter?*

Ola Källenius: If you look at society as a whole, we all know this, the amount of information that you absorb per day now—compared with, maybe, what you did 10, 30, 50 years ago—is much, much higher. So to grab the attention of the relevant people and drive their buyers' choice, you have to be really smart about this. This has huge importance, as far as Mercedes is concerned, compared with where we were years ago, when marketing was more just about the product.

Now, to digitize within Mercedes, we have a proof point that we push for connectivity: “Mercedes me.” You have to have connectivity, especially for younger people. We offer all kinds of services around the car and beyond, so to speak. The look and feel of our advertising, physical presentation, and stores all need to fit into that world. This is reflected in our “Mercedes me” showroom in Hamburg—well, you could call it a showroom, but it's really not. It's a restaurant, it's a happening place where we cooperate with artists and with musicians. It's the cool place to be for young, successful professionals. They're working hard all week, and they deserve a treat on the weekends!

The Quarterly: *Which becomes a key facet of this new golden age, does it not? The better you engage with your customer, the stronger your customer's experience going forward.*

Ola Källenius: The founding father of our company called it: “The best or nothing.” What did he mean when he said that? He was not talking about a product description, per se. He was talking about attitude. You don't rest on your laurels. You move beyond.

We push the emotional button very consciously across touchpoints in marketing. And the great thing with Mercedes is that you do have emotional brands. When you buy a Mercedes, it's always been about the dream of the little kid one day driving the star. ○

Ola Källenius is a member of the Board of Management of Daimler, responsible for marketing and sales. This interview was conducted by **Jesko Perrey**, a director in McKinsey's Düsseldorf office.



To learn how new techniques can stem staff defections, drive better recruitment, and improve performance management, see “Power to the new people analytics,” on page 61.

Getting big impact from big data

David Court

New technology tools are making adoption by the front line much easier, and that's accelerating the organizational adaptation needed to produce results.

The world has become excited about big data and advanced analytics not just because the data are big but also because the potential for impact is big. Our colleagues at the McKinsey Global Institute (MGI) caught many people's attention several years ago when they estimated that retailers exploiting data analytics at scale across their organizations could increase their operating margins by more than 60 percent and that the US healthcare sector could reduce costs by 8 percent through data-analytics efficiency and quality improvements.¹

Unfortunately, achieving the level of impact MGI foresaw has proved difficult. True, there are successful examples of companies such as Amazon and Google, where data analytics is a foundation of the enterprise. (To learn how marketing functions in Google's data-driven culture, see "How Google breaks through," on page 42.) But for most legacy companies, data-analytics success has been limited to a few tests or to narrow slices of the business. Very few have achieved what we would call "big impact through big data," or impact at scale. For example, we recently assembled a group of analytics leaders from major companies that are quite committed to realizing the potential of big data and advanced analytics. When we asked them what degree of revenue or cost improvement they had achieved through the use of these techniques, three-quarters said it was less than 1 percent.

¹ See the full McKinsey Global Institute report, *Big data: The next frontier for innovation, competition, and productivity*, May 2011, on mckinsey.com.

In previous articles, we've shown how capturing the potential of data analytics requires the building blocks of any good strategic transformation: it starts with a plan, demands the creation of new senior-management capacity to really focus on data, and, perhaps most important, addresses the cultural and skill-building challenges needed for the front line (not just the analytics team) to embrace the change.²

Here, we want to focus on what to do when you're in the midst of that transformation and facing the inevitable challenges to realizing large-scale benefits (exhibit). For example, management teams frequently don't see enough immediate financial impact to justify additional investments. Frontline managers lack understanding and confidence in the analytics and hesitate to employ it. Existing organizational processes are unable to accommodate advancements in analytics and automation, often because protocols for decision making require multiple levels of approval.

If you see your organization struggling with these impediments to scaling data-analytics efforts, the first step is to make sure you are

² See Stefan Biesdorf, David Court, and Paul Willmott, "Big data: What's your plan?," *McKinsey Quarterly*, March 2013; and Brad Brown, David Court, and Paul Willmott, "Mobilizing your C-suite for big-data analytics," *McKinsey Quarterly*, November 2013, both available on mckinsey.com.

Exhibit

How to accelerate your data-analytics transformation

Take advantage of advancements in analytics

Deploy **targeted analytics solutions** from software and services providers

Adopt **self-service analytics tools** and the explosion of external data sources

Employ **machine learning and automation**



Mobilize the organization

Focus on **1 to 2 areas** in the organization

Redesign **workflows and jobs** to leverage automated analytics

Launch a **cultural transformation** through training, competitions, and communications



Big impact from big data

doing enough to adopt some of the new tools that are emerging to help deal with such challenges. These tools deliver fast results, build the confidence of the front line, and automate the delivery of analytic insights to it in usable formats.

But the tools alone are insufficient. Organizational adaptation is also needed to overcome fear and catalyze change. Management teams need to shift priorities from small-scale exercises to focusing on critical business areas and driving the use of analytics across the organization. And at times, jobs need to be redesigned to embrace advancements in digitization and automation. An organization that quickly adopts new tools and adapts itself to capture their potential is more likely to achieve large-scale benefits from its data-analytics efforts.

Why data-analytics efforts bog down before they get big

As recently as two or three years ago, the key challenges for data-analytics leaders were getting their senior teams to understand its potential, finding enough talent to build models, and creating the right data fabric to tie together the often disparate databases inside and outside the enterprise. But as these professionals have pushed for scale, new challenges have emerged.

First, many senior managers are reluctant to double down on their investments in analytics—investments required for scale, because early efforts have not yielded a significant return. In many cases, they were focused on more open-ended efforts to gain novel insights from big data. These efforts were fueled by analytics vendors and data scientists who were eager to take data and run all types of analyses in the hope of finding diamonds. Many executives heard the claim “just give us your data, and we will find new patterns and insights to drive your business.”

These open-ended exercises often yielded novel insights, without achieving large-scale results. For example, an executive at one auto-maker recently invested in an initiative to understand how social media could be used to improve production planning and forecasting. While the analysis surfaced interesting details on customer

preferences, it didn't provide much guidance on how to improve the company's forecasting approach. Executives can often point to examples such as this one where early efforts to understand interesting patterns were not actionable or able to influence business results in a meaningful way. The upshot: senior management often is hesitant about financing the investments required for scale, such as analytics centers of excellence, tools, and training.

Second, frontline managers and business users frequently lack confidence that analytics will improve their decision making. One of the common complaints from this audience is that the tools are too much like black boxes; managers simply don't understand the analytics or the recommendations it suggests. Frontline managers and business users understandably fall back on their historic rules of thumb when they don't trust the analytics, particularly if their analytics-based tools are not easy to use or are not embedded into established workflows and processes. For example, at a sales call center, staff members failed to use a product-recommendation engine because they didn't know how the tool formulated the recommendations and because it was not user friendly. Once the tool was updated to explain why the recommendations were being made and the interface was improved, adoption increased dramatically.

Finally, a company's core processes can also be a barrier to capturing the potential of sophisticated analytics. For the "born through analytics" companies, like Amazon and Facebook, processes such as pricing, ad serving, and supply-chain management have been built around a foundation of automated analytics. These organizations also have built big data processing systems that support automation and developed recruiting approaches that attract analytics talent.

But in more established organizations, management-approval processes have not kept up with the advancements in data analytics. For example, it's great to have real-time data and automated pricing engines, but if management processes are designed to set prices on a weekly basis, the organization won't be able to realize the full impact of these new technologies. Moreover, organizations that fail to leverage such enhancements risk falling behind.

Achieving scale through new technologies

Few areas are experiencing more innovation and investment than big data and analytics. New tools and improved approaches across the data-analytics ecosystem are offering ways to deal with the challenge of achieving scale. From our vantage point, three hold particular promise.

First is the emergence of targeted solutions from analytics-based software and service providers that are helping their clients achieve a more direct, and at times faster, impact on the bottom line. An emerging class of analytics specialists builds models targeted to specific use cases. These models have a clear business focus and can be implemented swiftly. We are seeing them successfully applied in a wide range of areas: logistics, risk management, pricing, and personnel management, to name just a few. Because these more specific solutions have been applied across dozens of companies, they can be deployed more readily. Collectively, such targeted applications will help raise management's confidence in investing to gain scale. There's still a need for a shift in culture and for a heavy emphasis on adoption, but the more focused tools represent a big step forward.

Second, new self-service tools are building business users' confidence in analytics. One hot term gaining traction in the analytics world is "democratization." Getting analytics out of the exclusive hands of the statistics gurus, and into the hands of a broad base of frontline users, is seen as a key building block for scale. Without needing to know a single line of coding, frontline users of new technology tools can link data from multiple sources (including external ones) and apply predictive analytics. Visualization tools, meanwhile, are putting business users in control of the analytics tools by making it easy to slice and dice data, define the data exploration needed to address the business issues, and support decision making. Companies such as American Express, Procter & Gamble, and Walmart have made major investments in these types of tools to democratize the use of analytics.

Hands-on experience (guided by experts in early go-rounds) helps people grow accustomed to using data. That builds confidence and, over time, can increase the scale and scope of data-informed

problem solving and decision support. A technology-hardware company, for example, deployed a set of self-service analytics and visualization tools to improve the decisions of its sales force. The new platform helped the company to conduct customer analytics and to better identify sales and renewal opportunities. Since implementing the tools, the tech company has generated more than \$100 million in new revenue from support and service contracts.

Finally, it's becoming much easier to automate processes and decision making. Technology improvements are allowing a much broader capture of real-time data (for example, through sensors) while facilitating real-time, large-scale data processing and analysis. These advances are opening new pathways to automation and machine learning that were previously available only to leading technology firms. For example, one insurer has made major strides using analytics to predict the severity of claims. Automated systems instantly compare a filing with millions of claims records, cutting down the need for human intervention. Another analytics program can significantly automate search-engine optimization by predicting the type of content that will optimize engagement for a given company and automatically serving up content to capture customers.

Beyond new tools: Adapting the organization

The challenges we outlined above demand some new actions beyond the tools: more focus, more job redefinition, and more cultural change.

Focus on change management

Democratization and the power of new tools can help overcome front-line doubts and unfamiliarity with analytics. However, in addition to gaining confidence, managers need to change their way of making decisions to take advantage of analytics. This is the heart of the change-management challenge—it is not easy, and it takes time. The implication is that to achieve scale, paradoxically, you need to focus. Trying to orchestrate change in all of a company's daily decision-making and operating approaches is too overwhelming to be practical. In our experience, though, it's possible to drive adoption and behavioral change across the full enterprise in focused areas such as pricing, inventory allocation, or credit management. Better to pursue scale that's achievable than to overreach and be disappointed

or to scatter pilots all over the organization. (One-off pilots often appeal to early adopters but fail to cross the chasm and reach wider adoption or to build momentum for company-wide change.)

Leaders should ask themselves which functions or departments would benefit most from analytics and deploy a combination of new targeted solutions, visualization tools, and change management and training in those few areas. One telecommunications company, for example, focused on applying analytics to improve customer-churn management, which held the potential for a big bottom-line impact. That required the company to partner with a leading data-storage and analytics player to identify (in near real time) customers who would churn. Once the models were developed, a frontline transformation effort was launched to drive adoption of the tools. Moreover, customer-service workflows were redesigned, user-friendly frontline apps were deployed, and customer-service agents received training for all of the new tools.

Redesign jobs

Automating part of the jobs of employees means making a permanent change in their roles and responsibilities. If you automate pricing, for instance, it is hard to hold the affected manager solely responsible for the profit and loss of the business going forward, since a key part of the profit formula is now made by a machine. As managerial responsibilities evolve or are eliminated altogether, organizations will have to adapt by redefining roles to best leverage and support the ongoing development of these technologies. At the insurance company above, claims managers no longer process all claims; instead, they focus on the exceptional ones, with the highest level of complexity or the most severe property damage. Again, focus is required, since job redesign is time consuming. And it can be taken on only if the automated tools and new roles have been developed and tested to meet whatever surprises our volatile world throws at them.

Build a foundation of analytics in your culture

People have been talking about data-driven cultures for a long time, but what it takes to create one is changing as a result of the new tools available. Companies have a wider set of options to spur analytics engagement among critical employees. A leading financial-services firm, for example, began by developing competitions that rewarded and recognized those teams that could generate powerful insights

through analytics. Second, it established training boot camps where end users would learn how to use self-service tools. Third, it created a community of power users to support end-users in their analyses and to validate findings. Finally, the company established a communications program to share the excitement through analytics meet-ups, leadership communications, and newsletters (which were critical to maintaining long-term support for the program). Creative adaptations like these will help companies to move beyond the hope that “we are going to be a big data company” and to root cultural change in realistic action.



New technologies, with their ease of adoption, point toward the next horizon of data analytics. For a glimpse of what the future might hold, consider what’s happening now at a leading organization that has adopted an innovative approach to embedding analytics capabilities within its businesses.

The company started with early-stage centers of excellence and a small corps of analytics specialists tackling business cases in bespoke fashion. Today, it rotates business leaders into a new type of analytics center, where they learn the basics about new tools and how to apply them. Then they bring these insights back to their respective business. They don’t become analytics specialists or data scientists by any means, but they emerge capable of taking analytics beyond experiments and applying it to the real business problems and opportunities they encounter daily.

We foresee the day when many companies will be running tens or even hundreds of managers through centers like these. That will accelerate adoption—particularly as analytics tools become ever more frontline friendly—and create the big impact that big data has promised. ○

The author would like to acknowledge the contributions of Mohammed Aaser, Matt Ariker, Brad Brown, and Stephanie Coyles.

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Illustration by Daniel Hertzberg

Power to the new people analytics

Bruce Fechey-Lippens, Bill Schaninger, and Karen Tanner

Techniques used to mine consumer and industry data may also let HR tackle employee retention and dissatisfaction.

The latest data and analytics buzz comes from the field of advanced HR analytics, where the application of new techniques and new thinking to talent management is becoming more mainstream. The implications are dramatic because talent management in many businesses has traditionally revolved around personal relationships or decision making based on experience—not to mention risk avoidance and legal compliance—rather than deep analysis. Advanced analytics provides a unique opportunity for

human-capital and human-resources professionals to position themselves as fact-based strategic partners of the executive board, using state-of-the-art techniques to recruit and retain the great managers and great innovators who so often drive superior value in companies.

Some leading organizations we know are already using advanced HR analytics successfully in certain talent-management areas. A leading healthcare organization, for example, has used these techniques

to generate more than \$100 million in savings while simultaneously improving the engagement of its workforce. The organization found that highly variable and unequal compensation levels were disturbing employees and driving high rates of attrition. Once the data analytics had identified an optimal minimum and maximum compensation threshold, the healthcare group increased the engagement and productivity of its employees—and reduced not only their rate of attrition but also its total compensation expenditures.

Another company we know reduced its retention bonuses by \$20 million—and employee attrition by half—thanks to the use of predictive behavioral analytics. Through this process, and contrary to expectations, the company found that limited investment in management and employee training, and inadequate recognition, were the main drivers of staff defections. Expensive retention bonuses, to which the company had resorted in desperation, were simply an ineffective and costly Band-Aid. Many companies conventionally try to tackle retention issues by conducting in-depth exit interviews. The important advantage of the new analytics techniques over that approach is that they are predictive, rather than reactive, and they provide more objective information than the more qualitative findings of a one-on-one discussion.

At McKinsey, we've been developing our own approach to retention: to detect previously unobserved behavioral patterns, we combine various data

sources with machine-learning algorithms. We first held workshops and interviews to generate ideas and a set of hypotheses. Over time, we collected hundreds of data points to test. Then we ran different algorithms to get insights at a broad organizational level, to identify specific employee clusters, and to make individual predictions. Last, we held a series of workshops and focus groups to validate the insights from our models and to develop a series of concrete interventions.

The insights have been surprising and at times counterintuitive. We expected factors such as an individual's performance rating or compensation to be the top predictors of unwanted attrition. But our analysis revealed that a lack of mentoring and coaching and of "affiliation" with people who have similar interests were actually top of list. More specifically, "flight risk" across the firm fell by 20 to 40 percent when coaching and mentoring were deemed satisfying.

Our North American consultants who pursue a functional affiliation and capability-building program in areas such as operations, marketing and sales, or corporate finance were three times more likely to stay with the firm than those who don't pursue such options. When consultants do, they receive specialized training, gain access to a community of colleagues who share the same passion, and get exposure to senior leaders. Subsequently, the data we retrieved helped us devise new programs to monitor and further strengthen our coaching and mentorship

relationships, especially for our younger colleagues, and to intervene proactively to retain those “at risk.” Given our six-month review period and rapid engagement-cycle times, our predictive-retention algorithm is now refreshed every six months.

We’re still developing our understanding of how data analytics can drive better people decisions, but we’re already actively using these techniques beyond retention, to improve everything from talent acquisition to performance management to diversity. Our work confirmed that while top-notch technological capabilities are critical, they are not a silver bullet. Getting the right talent—be it experts in risk, marketing, or behavioral economics—to interpret and act on the data is just as important. So are leadership engagement and alignment. Moreover, an HR-analytics approach

is no substitute for engaging directly with employees in an effort to understand their mind-sets, challenges, and needs. HR analytics, if done well, generates data-driven, organization-specific insights for executives and human-capital professionals to make more strategic decisions about their people. ○

Bruce Fechey-Lippens, a consultant in McKinsey’s Brussels office, **Bill Schaninger**, a director in the Philadelphia office, and **Karen Tanner**, a principal in the Boston office, are leaders of McKinsey’s people and organizational analytics efforts.

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Photos courtesy of The Ford Motor Company

Bill Ford charts a course for the future

The carmaker's executive chairman offers his thoughts on the discontinuities facing automakers and management.

William Clay Ford Jr. is known for taking the long view. The great-grandson of Henry Ford and the executive chairman of Ford Motor Company, Bill Ford was an early advocate for sustainability at the company, which earned the number-one spot on Interbrand's list of Best Global Green Brands in 2014 and also has been improving its competitive position. But to navigate through the coming years, Ford must travel in uncharted territory. Today's automakers confront developments that will affect the industry for decades: swelling megacities, self-driving vehicles, new technology challengers, and digitally connected cars—among others.

In September 2014, Ford sat down with Hans-Werner Kaas, a director in McKinsey's Detroit office and a leader of the firm's Automotive & Assembly Practice, and shared his views on disruptive trends throughout the automotive industry, his perspectives on leadership, and the opportunities he sees for the city of Detroit. The interview took place in Ford's office at the company's headquarters, in Dearborn, Michigan.

The Quarterly: *There are a lot of forces converging in the auto industry right now, including urbanization in emerging markets, powertrain electrification, emissions concerns, and trends toward active safety systems, semiautonomous driving, and vehicle connectivity. Is it an understatement to call this an interesting time?*

Bill Ford: The pace of change is accelerating and I love it. I think it's the most interesting time in my 35 years at Ford. It used to be that the auto industry, and the car itself, were part of a self-contained ecosystem. If there were breakthroughs, they were developed within the industry. It was a much more controlled environment and not nearly as dynamic as today's. In fact, I think we ended up being rather insular as an industry, and on balance it was not a good thing.

That's all been turned on its head; we now have disruption coming from every angle, from the potential ways we fuel our vehicles to the ownership model. We have a whole generation that just wants access to vehicles as opposed to ownership—for example, through services such as Uber, Zipcar, and RelayRides. Even the dealership model is changing, with Tesla selling directly to consumers.

In terms of connectivity, so much of the technology is being developed outside the auto industry. Whether it's vehicle-to-vehicle and vehicle-to-infrastructure communication, semiautonomous and fully autonomous driving, or connecting to the cloud—these are all major trends coming at us fast and furiously.

The Quarterly: *How do the changes, and especially their disruptive nature and simultaneous appearance, affect automakers?*

Bill Ford: The reality is that we will not own, or develop, most of these technologies. So we have to be a thoughtful integrator of other peoples' technologies and understand where we add value. Because if we're not careful, we could become like some mobile-handset makers, where all the value is added by someone else.

One way to distinguish ourselves will be in how we present these technologies to customers, so that they find them appealing and not intimidating. There will be a lot of new technologies that help enhance the driving and safety experience, but some people won't be comfortable with them—they don't want their data uploaded in the cloud, for example. So we'll need to have levels of opt-in/opt-out in our offerings.

Ultimately, we can make the driving experience safer, more intuitive, and more fun. Actually, "fun" isn't something that people talk about when they talk about all this technology. But fun is something that should always be a part of the driving equation.

The Quarterly: *Speaking of fun, semiautonomous cars are an increasingly important development today, heading toward self-driving cars in the future. Will that affect our love affair with the car?*

Bill Ford: Well, I think we are already seeing a different type of love affair. When I was a child, people could work on their own cars easily. They would wax them in their driveways. It was a very personal, hands-on relationship. That's evolved over the last 15 years or so as more technology has come into vehicles and cars have gotten more sophisticated. But the fun of driving is still there. And as we look forward to autonomous driving, it certainly—if done correctly—can

have profound safety implications. The elderly wouldn't have to give up their driver's licenses as early as they do today. Drunk driving could be a thing of the past. There are a lot of really positive things that come with it, and I'm excited by it. Still, I am also a little bit nostalgic, because I love to drive. I even like a manual transmission, though I may be a throwback.

The Quarterly: *When should we expect those transformations to happen?*

Bill Ford: There are a lot of bold, singular predictions. I take a more relaxed and holistic view. I think a lot of the required elements will go into vehicles over the next two, three, or perhaps five years. Yet by the time we actually get to full autonomy, it will almost feel like an anticlimax because we'll have been 95 percent of the way there already. That last 5 percent, though, will be interesting, and no one really can predict when it will happen. We'll need a lot more certainty than we have today before cars can be fully autonomous, and we'll need redundancies in these systems.

There are elements already in place. I recently drove up to northern Michigan on Interstate Highway 75. I put on the adaptive cruise control, comfortable knowing that if the car in front of me decelerated quickly, my car would act immediately to keep the gap I'd set. I found that a really useful tool. We'll keep adding more of these features, so that the final steps to full autonomy will feel almost uneventful. I think the technology will be ready before society and lawmakers are.

The Quarterly: *How will connectivity affect the equation? Will there be a battle between our mobile devices and what is embedded in the vehicle?*

Bill Ford: It's true that people want to bring their lives—in the form of their phones and their iPads and whatever else they carry—into vehicles in a seamless way. And that's happening to some extent now. But we can't distract the driver with too much going on. Those are the kinds of things we're thinking through and must think through as an industry. It's the same with vehicle-to-vehicle communication: it doesn't do any good if Ford vehicles can talk only to other Fords.

Even though we have a lot of competitive issues, we have to have a standard, and that's something we are working on as an industry.

I think all vehicles have to be part of an integrated network, and every form of transportation has to be talking to the others, so that we can optimize our way of moving around. For example, very soon our cars will be able—through sensors and technology—to be notified when a parking space opens up and then to pre-reserve it for us and have us billed directly, through an app. Things like this will start to redefine what urban mobility means.

The Quarterly: *What's the right balance between individual mobility and more holistic transportation systems, especially in light of accelerating urbanization and the development of megacities?*

Bill Ford: I talked about this a few years ago at a TED conference,¹ where I used the phrase “global gridlock,” which is exactly where we're headed. It's a fallacy to look at the GDP growth in emerging markets and say, “Wow, isn't this great?” and then to extrapolate some absurd number of vehicle sales ten years out, with no thought of “Really? Where are these cars going to go?” The roads already are impassable in some emerging markets, and they don't have the proper infrastructure. You're not going to put two cars in every garage in Mumbai, for example, even if residents there can afford it. Given how disproportionately quickly the world is urbanizing, we are going to hit the limits of our ability to provide mobility unless we adopt a very different profile going forward.

It's already happening. In most cities, if people have a car, they love their car and hate everybody else's. And they are paying a fortune to just keep the car. In many cases, they have to pay a fee to get into a city center or can only go in on odd or even days, depending on the license plate. Lots of cities are trying to deal with this in different fashions, but those aren't long-term solutions. Those are Band-Aids. Today, 30 percent of all fuel burned in cities comes from cars looking for a parking spot. And that's not only fuel. That's time, that's aggravation.

¹ “Bill Ford: A future beyond traffic gridlock,” TED, March 2011, ted.com.

When I gave my TED talk, people were shocked. They said, “Wait a minute. What I just heard you say is you’re going to be, potentially, selling fewer cars in the future.” And I told them that’s exactly what’s going to happen unless we start doing something differently and redefine ourselves as a mobility company and not just as a car and truck manufacturer.

The Quarterly: *What does it mean to be a mobility company?*

Bill Ford: The role of a traditional automaker changes dramatically. We become a piece of the mobility ecosystem. In this new world, we need to figure out what we have to own and what we don’t and to be a great integrator of technologies and services. We need to figure out who are friends, who are foes, and how do we turn our foes into friends.

I was speaking at a conference, several years ago, where I met Scott Griffith, then-CEO of Zipcar, which was relatively new at the time. I told Scott that I’d love to talk to him, and he said to me, “Didn’t you hear my talk about taking cars off the road?” And I said, “Yes, but it’s going to happen with or without us, and I’d like to have it happen with us.” So we’ve now gone together to over 250 college campuses—Ford and Zipcar—and it’s been a great partnership because students are influenced by what they drive in Zipcar, so when they leave school, we become a car of choice. It’s a win-win.

Given how disproportionately quickly the world is urbanizing, we are going to hit the limits of our ability to provide mobility unless we adopt a very different profile going forward.

The Quarterly: *Do you regard new or nontraditional players—such as Tesla, Google, or Apple—as welcome disruptors, partners, or foes?*

Bill Ford: We have to make them all our friends at some point, and they may not all start out that way. But we need to be exceptionally curious as a company. We have to know how to interact with those companies because they speak a different language; they're on a different cadence. They often have a different customer experience. Another big challenge is just keeping abreast of who these players are. The disruptors are being disrupted themselves on a regular basis. We need to be accessible, so that all these companies feel comfortable approaching us. It's not a muscle that we've developed over the years, but we are doing that now and we need to continue to do it.

The Quarterly: *How do you foster curiosity and accessibility while also focusing on your core business?*

Bill Ford: There's an interesting balance that has to take place, because we need to be open to and excited by the disruption happening everywhere. But we can't be distracted by it, because we have a daily business to run. We have to deliver a quality product, which requires attention to detail; we have to meet all the regulatory requirements. And so what Mark Fields² and I are talking about is the appropriate level of distraction. I think companies and their leadership need to understand the intensity of the disruption that's taking place in our industry. We need to have an initial point of view on these disruptions. We need at least enough knowledge internally to be able to interact with these companies externally. I'm sure these very questions that we're grappling with are being grappled with throughout our industry. But I think our family ownership and the way we're organized allow us to take a longer view.

The Quarterly: *You have been both an executive chairman and a CEO. What are the benefits of separating the roles?*

² Ford CEO Mark Fields

Bill Ford: I've actually had three jobs. I've been nonexecutive chairman, I've been CEO, and then I've been executive chairman, so I've really lived the spectrum. And I love this construct because it allows me to use my knowledge of this company to think about where it can and should go in the future in a way that I could never do as CEO.

Bill Ford



Vital statistics

Born May 3, 1957, in Detroit, Michigan

Married, with four children

Education

Graduated with a bachelor's degree in history from Princeton University in 1979 and a master's degree in management as an Alfred P. Sloan fellow from the Massachusetts Institute of Technology in 1984

Career highlights

Ford Motor Company (1979–present)

Executive chairman (2006–present)

Chief executive officer (2001–06)

Chairman of the board of directors (1999–present)

Various positions in strategy, sales, marketing, product development, and sustainability

Fast Facts

Member of eBay Inc.'s board of directors

Chairman of the board of the Detroit Economic Club and board member of Business Leaders for Michigan

Founding partner of Fontinalis Partners, a venture-capital firm investing in mobility-technology companies around the world

Member of the board of trustees of the Henry Ford Health System

Vice chairman of the Detroit Lions professional football team

Just by definition, Mark's share of mind has to be more focused on the immediate pressures of being a CEO and running the day-to-day business. A problem arises this morning; it's got to be solved immediately. Still, this separation has to be a partnership. I can't be off in an ivory tower with a stack of books thinking about the future, and Mark can't be completely disengaged from what I'm doing. We spend a lot of time just talking and making sure we're on the same page and moving forward in lockstep, although at times concentrating on different issues.

The Quarterly: *How do you view a leader's role with respect to engaging the company on broader societal issues?*

Bill Ford: I think you've got several roles. You have to be an advocate for positive societal change within your company. I've pushed the environmental movement for 35 years within Ford. I met with tremendous resistance, both within the industry and my company; even the environmental community initially thought I was a wolf in sheep's clothing. But I continued pushing.

Leaders also have an important role in their communities. People are very busy, and we can all find reasons not to get involved, but our communities need us. As leaders, we have, hopefully, some brain power, we have connections, we have resources. And we should bring those to bear to make our communities better places—whether that's schools or hospitals or helping with social issues like homelessness and hunger. Find the thing that resonates most—but whatever it is, do it and set the example. And, usually, what comes back to you in terms of goodwill is ten times what you put into it.

The Quarterly: *What is your outlook for the community of Detroit?*

Bill Ford: I remember the 1967 riots in Detroit. I was ten years old, and I remember the city in flames. We had many years of decline: population decline, economic decline. And now—it seems strange to

say as we sit here today with the city in bankruptcy—I've never been more optimistic. The economic equation taking place in this city is unlike anything I've seen, whether it's start-ups coming into the city, established companies moving back to the city, or young people wanting to live in the city. I believe that when we do exit bankruptcy, there's something to build on now. Lots and lots of work to do still, but I'm the most hopeful I've been in my adult lifetime. ◉

This interview was conducted by **Hans-Werner Kaas**, a director in McKinsey's Detroit office, and **Thomas Fleming**, a former member of McKinsey Publishing.

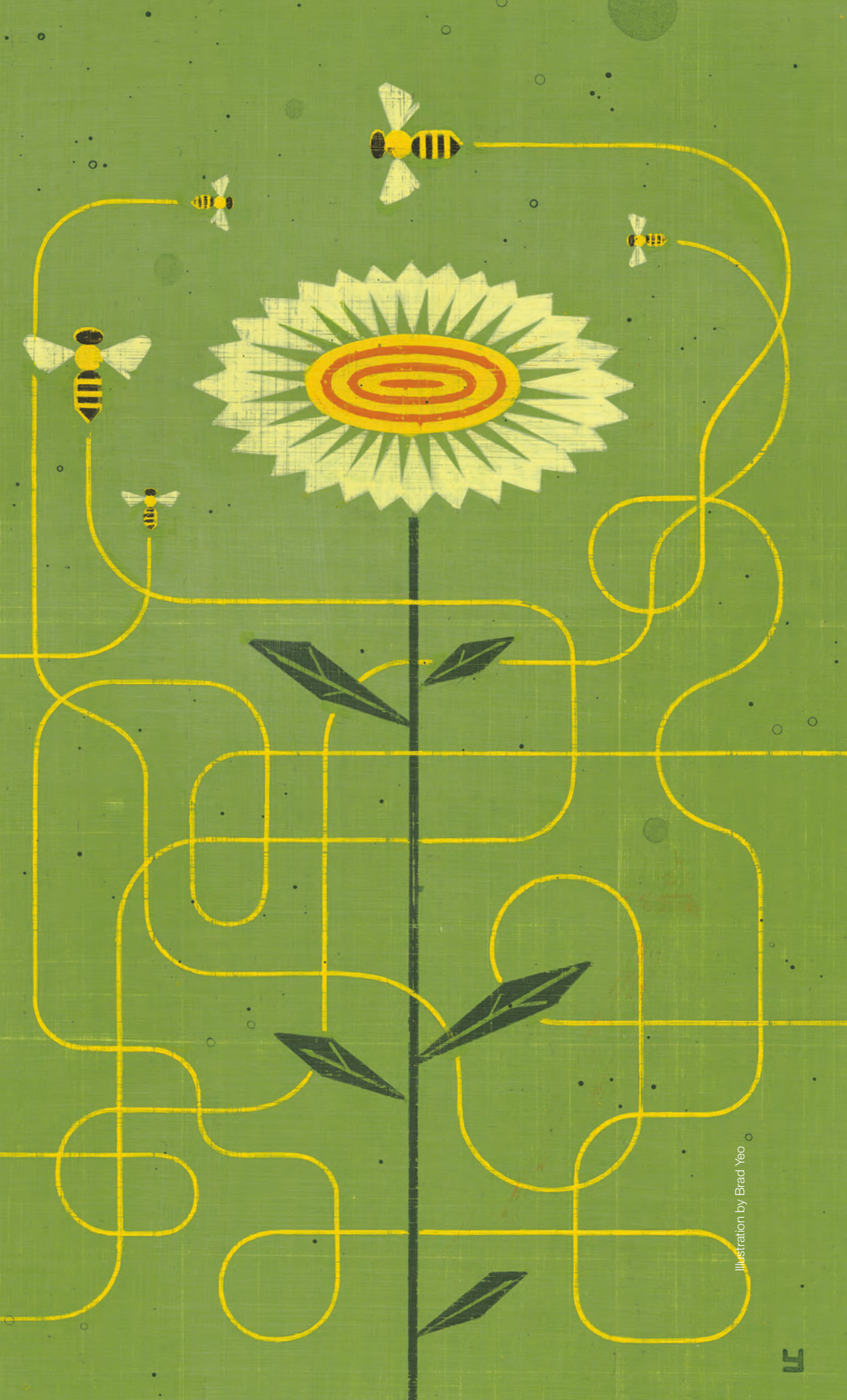


Illustration by Brad Yeo

Do you really understand how your business customers buy?

Oskar Lingqvist, Candace Lun Plotkin, and Jennifer Stanley

B2B purchasing decisions increasingly trace complex journeys, challenging the long-standing practices of many sales organizations.

The CEO of a major supplier to the telecom industry was frustrated. An initiative to increase sales volumes and shift the company's product mix to higher-value components was stalling, and not for lack of effort. With support from a marketing campaign that emphasized a slew of new product features, frontline sales managers had stepped up calls to their purchasing contacts at OEM customers. Yet they reported that buyers weren't buying. Impediments appeared to include tough new requirements from chief purchasing officers, negative chatter on social media about postsales support, and skeptical questions on a product-rating site about an offering's fully loaded costs.

Welcome to the new dynamics of B2B sales. Decision-making authority for purchases is slipping away from individuals in familiar roles—often those with whom B2B sales teams have long-standing relationships. Just as the digital revolution has transformed once-predictable consumer purchasing paths into a more circular pattern of touchpoints, so too business-to-business selling has become less linear as customers research, evaluate, select, and share experiences about products. More people within (and, thanks to digital engagement, even outside) the organization are playing pivotal roles in sizing up offerings, so the path to closing sales has become more complicated.

The best response is to embrace the new environment. Sellers who are ready to meet customers at different points on their journeys will exploit digital tools more fully, allocate sales and marketing resources more successfully, and stimulate collaboration between these two functions, thereby helping to win over reluctant buyers. Our experience with upward of 100 B2B sales organizations suggests that while the change required is significant, so are the benefits: an up to 20 percent increase in customer leads, 10 percent growth in first-time customers, and a speedup of as much as 20 percent in the time that elapses between qualifying a lead and closing a deal.

The consumerization of business buying

Marketers have long drawn a bright line between consumer shoppers and business purchasers. Consumers, after all, care deeply about brands and are more readily influenced by advertising, media messages, special deals, and coupons. In addition, they often turn to friends and family for advice on what they are buying, are susceptible to impulse shopping, and can switch from one brand to the next with little cost.¹ Business purchasers, by contrast, do a lot of research, look carefully at specifications, follow a formal buying or procurement process, can experience high switching costs, and usually worry most about functionality.

Yet an explosion of communication vehicles and interaction channels has ratcheted up the expectations of business purchasers. Many more influencers and decision makers are now involved in the purchasing process, and business buyers too have been shaped by their consumer shopping experience. As a result, their behavior has become more consumer-like. There is no longer such a thing as a simple cold call: customers expect a sales rep to be extremely knowledgeable about their business and perhaps even their own individual profile—at least if the purchaser is a millennial who has grown up sharing his or her life online. In other respects, as well, the purchasing process is becoming more fluid.

More social. Business customers are exposed to the same dynamics of peer-to-peer networks and opinions that influence individual

¹ See David Court, Dave Elzinga, Susan Mulder, and Ole Jørgen Vetvik, “The consumer decision journey,” *McKinsey Quarterly*, June 2009, mckinsey.com.

consumers. The equivalent of Facebook’s “like” button also applies to B2B sales. Many of the one-to-one relationships with key decision makers that sales executives historically relied on to close sales are shifting to one-to-many relationships. Moreover, the actions of important influencers (including senior executives) in the purchasing process are often less visible to suppliers. Customers may be “liking” or “not liking” a prospective offer long before the sales rep has even presented it. For example, an expert blogger with a wide following among, say, electrical engineers can shift perceptions of which supplier has the best next-generation networking equipment. Or a speaker at a trade show—her message amplified by her listeners through digital channels—may have an outsized impact on a CEO’s perceptions of market trends and their implications for different B2B suppliers.

More real-time. Flows of digital information have further democratized business procurement. Our research indicates nearly 50 percent of all B2B purchases will be made on digital platforms by the end of 2015, and expenditures for B2B digital advertising are expected to double by 2018. Empowered purchasers increasingly demand real-time digital interactions supported by tools such as product configurators and price calculators. And they are doing all this while texting, e-mailing, and talking regularly with on-the-ground sales teams, distributors, behind-the-scenes inside sales groups, customer-service call centers, and technical reps. Our research shows that, on average, a B2B customer will regularly use six different interaction channels throughout the decision journey, and almost 65 percent will come away from it frustrated by inconsistent experiences.

More modular. The game also is changing for closing deals with requests for proposals (RFPs). At one company, operations executives were looking to improve process efficiencies and assure better after-sales service. To increase their options, they overrode the purchasing department by requiring six rather than three bids for a product. They also demanded modular RFPs, so cross-functional teams could examine an offer’s details, such as service and financing. With so many gateways of influence, our research not surprisingly shows, two-thirds of B2B deals are lost before a formal RFP process even begins.

Beyond the sales funnel

These dynamics are undermining the traditional sales approach of pushing products to customers along a linear funnel comprising lead generation, lead qualification, proposal, negotiation, and close. In that world, funnel metrics kept track of what the sales force was up to and tallied daily win rates. The problem is that many of today's customers no longer buy this way. Nor does the tracking approach shed much light on what drives purchases or cements loyalty.

The proliferation of decision influencers—along with the growing amount of data about them and their behavior—reverses the funnel logic. It's now possible to follow the lead of customers rather than force them to follow the sales organization. Armed with state-of-the-art information, suppliers often find new buying patterns that defy well-trod linear paths (exhibit).

Although challenging, this world of 24/7 multichannel customer experiences creates additional opportunities to influence purchases. More complex interactions reflect strands of customer behavior—previously hidden—that companies can evaluate using big data and analytics. Those proprietary insights, in turn, can form the basis of much more targeted sales actions.

Three priorities for reshaping the sales organization

B2B companies across industries are moving toward journey-based sales strategies. We've seen success among organizations as varied as industrial-equipment manufacturers, software firms, professional-services firms, telecom providers, and basic-materials companies. Three actions are decisive:

- charting decision journeys by customer segment and drilling down on customer expectations and needs at each stage of the journey
- tackling the difficult process of reallocating sales and marketing resources to the activities most likely to influence decisions

- changing organizational structures to ramp up collaboration between marketing and sales

As B2B executives in marketing and sales organizations push ahead with these moves, they will also need to reach across the enterprise and sharpen the customer focus in every business unit and function.²

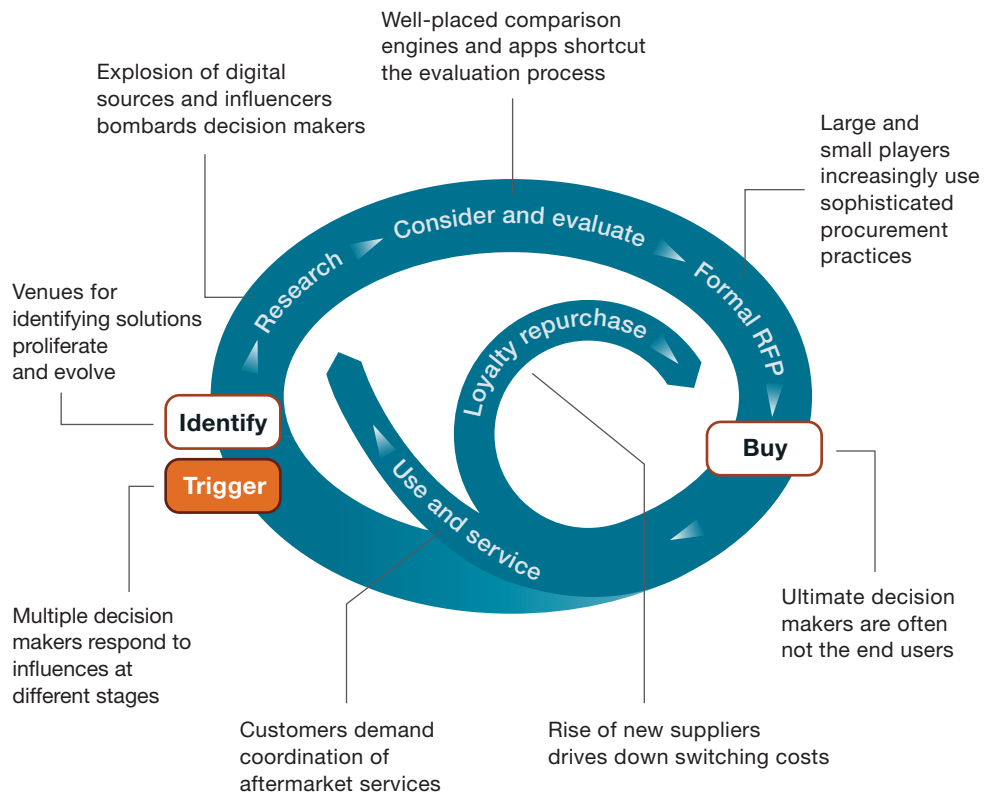
1. Map journeys and influencers by customer segment

Charting decision journeys by customer segment requires soliciting input from multiple sources and understanding the industry

² For perspectives on how to make marketing more pervasive throughout the organization, see Tom French, Laura LaBerge, and Paul Magill, "We're all marketers now," *McKinsey Quarterly*, July 2011, on mckinsey.com.

Exhibit

The decision journey of business-to-business customers is experiencing major disruptions.



Source: McKinsey analysis

context. For example, in sectors with a handful of big customers (like mining, shipping, or the public sector), there's no substitute for actually meeting them to analyze how they really make decisions (as opposed to how they *say* they make them). Large companies with thousands of customers may need data-driven market research (by mining social media, for example) to gain deeper insights. These findings can be paired with knowledge gleaned internally from sales, logistics, product marketing, and other functions to develop a hypothesis on how different variables—such as price, delivery times, or product features—affect purchase decisions. In this way, many suppliers have identified previously submerged customer segments.

Disciplined mapping often turns up counterintuitive insights. For example, one industrial company found that its most profitable customers were the “no frills, no hassle, lowest price” buyers who just wanted to fly through their journeys quickly, with minimal fuss and interaction. Once marketers and analysts have similarly drilled down on understanding segment preferences, they can chart a course of action, as one energy company did.

This company had long given customers three or four standard offers of pricing and service. Sales reps typically delivered or mailed brochures and other materials and followed up to qualify leads. Only after deregulation, when new entrants began siphoning off customers, did the company realize it needed a new approach. Senior executives therefore asked marketing to lead a research initiative combining direct interviews with data on energy use from customer billings. It turned up three clusters of customers, each with different sets of influencers:

- The companies in one segment, typically large ones in energy-intensive industries, like chemicals, were “high touch, high value.” They wanted a supplier that could not only handle complex RFPs covering contingencies for downtime but also provide advice on optimizing energy use. Interviews showed that manufacturing—not purchasing—executives were the key influencers. Marketing and sales subsequently worked together to redesign the company's RFPs to include a library of contracts it could readily customize. In addition, they assigned executive sponsors to work with manufac-

turing managers on-site when problems arose. The company also increased the skills of sales agents, so they could act as advisers on energy usage, sometimes in concert with technical specialists.

- Another cluster of customers had specific goals for their emissions footprints and wanted regular consumption data and benchmark comparisons. By setting up programs to meet such requirements, the supplier increased these customers' loyalty.
- The third segment consisted of mom-and-pop businesses, such as dry cleaners and convenience stores. These price-sensitive customers were most likely to jump ship. Interviews showed that they sought to make apples-to-apples comparisons of standard offers for rates and billing-cycle options. The decision maker was typically the business owner, who was more concerned with price than after-sales service quality. In response, the energy company built a web-based rate-comparison tool to assure these customers that they were getting the best deal.

Consider as well the experience of a large manufacturer of technology equipment. Realizing that the company was losing share in highly competitive markets, it began scrutinizing what was happening in different customer segments and found stark differences among them. At large customers, cost-conscious teams caring little for the technical specifications of products and typically led by a finance chief were the key influencers. They paid special attention to how RFPs spelled out the total cost of ownership, particularly maintenance expenditures. By contrast, smaller operators, often owned and managed by technology experts, were active and engaged researchers on the company's products and coming innovations.

In response, the manufacturer revamped its RFPs for large companies to expand the number of financing options. It overhauled its website materials to highlight cost efficiency and built a sophisticated price calculator with what-if scenarios to help finance executives justify their purchases with the CEO. Meanwhile, the company invited business-owner purchasers to beta-test new versions of its products and to attend events where they could preview its thinking about the direction of technologies and mingle with R&D executives.

2. Reallocate sales and marketing resources

When companies map customer journeys in the ways just described, they often turn up evidence of how traditional sales practices misallocate resources. But as our colleagues have described elsewhere,³ shifting spending to align it with new realities often meets with stiff internal resistance, requiring cultural changes that transcend the sales organization.

Beyond the golf outing. After mapping five customer segments, one industrial OEM found that nearly 70 percent of its marketing dollars and sales efforts across them were not directed at what mattered most to customers. For example, the company had invested heavily in customized demonstrations to roll out next-generation equipment. The demos were available to all customers, but only those in two of the segments—product enthusiasts and R&D innovators—really cared about participating in them. The rest, comprising over half of the customer base, were happy to visit a plant only occasionally, receive information remotely, or wait their turn for a technical specialist to visit with a standard demo kit.

Similarly, to encourage repurchases at the end of product cycles, each sales rep had the same per-user travel and entertainment budget. Yet many buyers didn't enjoy or get much value from the golf outings historically lavished on the company's largest customers—however hard that was for most of its sales teams to accept.

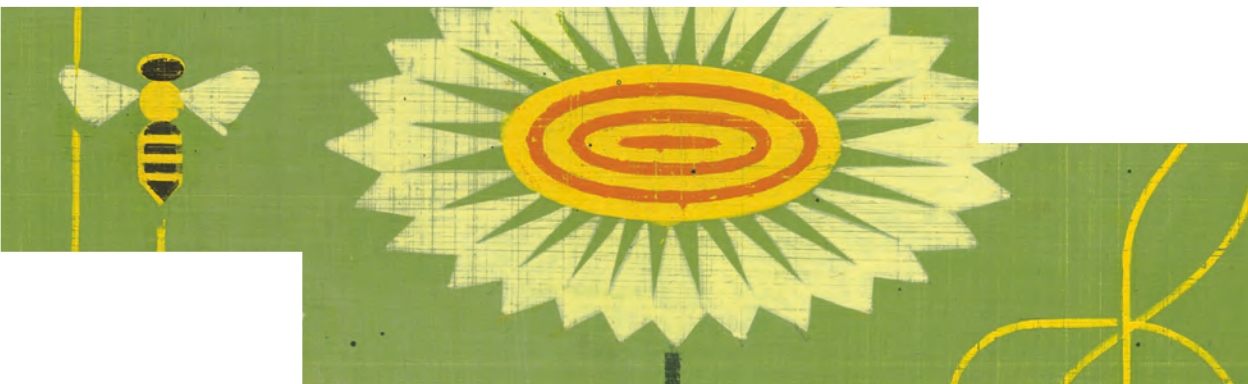
In a major rethink, the company began focusing its efforts more sharply on the activities that the most profitable segments liked best. The point wasn't so much to cut the budget as to make it work better in these segments, and in ways that would step up customer engagement across decision journeys.

Another example involved a large, struggling materials company that reconsidered the sales approach for one of its big vertical segments: government. After tracking decision journeys, it found

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

that the public-works executives targeted most often could rarely make spending decisions on their own. Instead they relied heavily on local distributors for advice on product costs, innovations, and warranties. Armed with this insight, the materials company worked to strengthen relationships with these independent dealers and pulled back on its largest marketing expense—trade shows geared to government buyers. The on-site distributor demos developed with the funds saved proved an effective way to get products into consideration for final purchase.

Changing the culture. For many of the B2B companies we know, the biggest hurdle to reallocating budgets isn't identifying the new opportunities; it's having the courage to test them. Seasoned executives and sales leaders often struggle to accept the reality that long-standing "truths" about how to best serve customers no longer apply. Shifting mind-sets to focus on maximizing influence and then rallying stakeholders around new directions can often take more time and energy than mapping new journeys. One company addressed this problem by holding debates among its marketing and sales teams to discuss findings from its decision-journey research. It then called in functional leaders from the finance, customer-service, supply-chain, and technology organizations to help bring objective rigor to discussions about what a new allocation of resources would mean for its performance and strategy. The exercise might have looked like a time sink when viewed from the outside, yet it proved crucial in creating the collective will to take the risk of trying new ways of serving customers.



3. Forge a partnership between marketing and sales at each stage of the customer decision journey

Moving from a sales-forward funnel to a customer-back journey requires the marketing and sales organizations to think more like their customers. We often see marketing units do customer research without seeking frontline input. Sales organizations often say that they understand the importance of better data but complain that proliferating information isn't helping them navigate the situations they face on the ground.

At advanced companies, marketing and sales are both involved in deciding on the right ways to attack touch points. Those techniques might include search-engine optimization to help build customer awareness, white-glove treatment that makes the RFP process more customer friendly, or loyalty programs that automatically replenish supplies and track customer satisfaction. Better collaboration can have the following advantages:

- **Clearer priorities.** One medical-device company developed an iPad app powered by its marketing research. When sales reps enter updates, the app reorganizes companies by customer segment and indicates specific items to cross-sell, pricing parameters, and service options.
- **Quick wins.** At a B2B seller, evidence from marketing analytics showed that leads for small and midsize companies were converted into product sales at higher rates when telephone calls or direct mail preceded e-mail interactions. The customer-relationship-management system was subsequently adjusted to provide such reminders.
- **Improved response times.** Seeing signs of aggressive new competition in one product area, and fearing a new round of discounting, a global industrial company's sales team alerted its marketing colleagues. They quickly dug into customer data and identified purchasers that often bundled multiple products with their orders and were therefore most likely to demand discounts. Working with finance and supply-chain colleagues, marketing and sales devised new ways to improve ease of ordering and fulfillment speed—faster credit checks, for example, and automated reminders for

customers whose inventories were estimated to be low—which delivered extra value for this segment. Such moves allowed the company to sidestep a possible price war.



The ground is shifting in B2B buying behavior as customer-directed journeys replace the traditional funnel. This is new and promising territory for organizations that embrace data, reallocate budgets, and do the hard work of bringing more collaboration to sales and marketing. Knowing what really makes customers tick may be the cure for the slow growth many suppliers have experienced during the tepid global economic recovery. ○

Oskar Lingqvist is a principal in McKinsey's Stockholm office; **Candace Lun Plotkin** is a master expert in the Boston office, where **Jennifer Stanley** is an associate principal.



Illustration by Brad Yeo

A virtuous cycle for top-line growth

Parmeet Grover and Roland John

New data and better coordination can create value in the sales channel.

The CEO of an auto manufacturer was puzzled that its market share had been slipping for three years. The quality of its products was high, and it had made big strides in operational efficiency. But as one director had chided at the previous board meeting, “the sides of our sandbox are starting to pinch.”

The CEO commissioned a report on one seemingly comparable competitor whose market share and margins had been steadily increasing. He discovered that it had unusually high loyalty rates and much lower marketing expenditures. A point of leverage seemed to be the way it was accessing revenues beyond the first sale. The vehicles its customers were turning in after their leases expired, for example, held their value better than his company’s did, and these higher residuals made customers more likely to sign up for new products. Service and parts revenues were higher, too.

The CEO immediately challenged his top team to look across the value chain and duplicate what he saw as the competitor’s virtuous asset cycle. The team responded by going deeper, identifying a surprising list of data sources, many unexploited by the company. One swath related to customers. These included the prices they had paid for their current and former vehicles, the incomes and personal assets of current and would-be customers, the leasing offers they had found attractive, their responses to promotions, their preferences about product features, how they became aware of an

OEM's brand as they navigated among competing product offers, and how service agreements tended to affect repeat business. Cars and related parts created a separate and equally rich data trail, including the value of a vehicle at resale, conditions of use, maintenance history (increasingly in real time), and disposal value.

Combining data on customers and products showed the OEM where and when it could improve coordination in the channel to create and distribute economic value to its customers and dealers. That would in turn significantly boost its own revenue growth and cut its expenses. Our research and work with OEMs in diverse industries show that by rethinking their sales-channel practices, nearly all of them can increase their operating margins by 15 to 25 percent.

At issue is a strategic challenge that has in various forms tested OEMs for years, not just in autos, but also in heavy construction, medical equipment, aircraft, farm machinery, IT, and other gear with a long asset life: how to increase returns on products requiring heavy up-front investments in product development, marketing, and distribution. Thanks to a new data-enabled transparency that helps OEMs see what happens to such assets over their full working lives, across a continuum of owners, these companies can now shed new light on the behavior and economics of customers and wholesalers throughout the sales channel. Many OEMs, of course, already generate additional revenues from parts sales and service contracts. But even such companies can benefit by becoming more disciplined in their use of new data sources and by addressing tricky coordination issues across financing units and dealership networks as products travel from initial sale to resale and, ultimately, to disposal.

What's holding OEMs back?

It's surprising, well into the digital age, how few manufacturers respond to intensifying competitive pressures as customers steep themselves in information and become more fickle.¹ New entrants are using fresh sources of data to offer maintenance, parts, and resale services and to capture segments of the value chain for themselves.

¹ See Martin Hirt and Paul Willmott, "Strategic principles for competing in the digital age," *McKinsey Quarterly*, May 2014, mckinsey.com.

While their prospects for ultimate success may still be unclear, new business models, such as those of urban car-sharing services Zipcar and car2go, are using apps to mine alternative revenues from automobile assets. More broadly, the Internet of Things—in which sensors embedded in physical objects (such as drilling equipment, wind turbines, and automated teller machines) allow the precise metering of their use—is making possible alternative pricing strategies.

Despite these pressures, OEM channel management has remained mostly fragmented. In the continuing rush to sell new products, companies overlook opportunities to increase margins and attract new customer segments—for instance, by bundling financing and service plans. One OEM's experience typifies how a life-cycle mind-set is missing. This OEM lacks even a centralized, shareable database of the buyers of its new or used products, let alone embedded sensors in its equipment. Sales reps have long pointed out that a customer's size is often the determining factor in its choice of new versus used equipment, as well as the type of financing it wants or its appetite for service programs. But without the relevant information, the OEM has consistently overspent on missteps such as product promotions.

Other OEMs, meanwhile, run their financing operations as silos—like third-party banks—and therefore often leave money on the table. Take, for example, the heavy-equipment maker whose reputation for strong products is the envy of competitors. Nonetheless, its dealers often complain that they are not aware when customer leases and lending packages are winding down and that they have little time to prepare sales strategies for new purchases or to recapture used equipment for resale. Better data on the resale intentions of the customers of these distributors, something they could acquire through better coordination with the equipment maker's finance arm, might allow them to create and offer service contracts that lock in loyalty with higher repurchase offers. When such programs are well run, according to our data, they can also increase an OEM's sales of parts by 35 percent and nearly double margins on parts and service.

Many OEMs also fail to capture revenue from equipment and parts that can be reconditioned and cycled back into manufacturing supply chains at the end of their lives—particularly when they've

been designed for reusability in the first place. Such practices, like those at automaker Renault, can help companies meet regulatory demands for the reuse of industrial products.²

Principles for a new operating model

Rethinking the fundamentals of sales-channel practices and organizations will take determined leadership with an appetite for cultural change. Our experience points to three areas where greater coordination and more aggressive use of information can differentiate strategy.

Managing and monitoring customers and value along the asset life cycle

More robust data can create better-defined customer segments, which OEMs can use to target activities along asset life cycles. One truck manufacturer, for instance, first divided its customers among four revenue segments. Digging more deeply into the data, it found that customers in each category had a markedly different likelihood of buying new rather than used equipment. That led them to make different financing choices—lease, loans, cash—and different demands for service agreements. The new segmentation allowed the OEM to create dozens of new combinations of offerings.

Not surprisingly, many customers base decisions about how much they are willing to pay for new equipment on what it will be worth at resale. Analyzing data on equipment use and maintenance histories provides a fact base for more accurately predicting residual values and new parameters for structuring maintenance agreements. To bolster the strength of the brand, advertising campaigns can highlight higher resale values. Furthermore, effective management of residual values should increase the flexibility of lease pricing, since less value erodes over the term of a lease, as we will see in a case study below. Higher resale values improve a dealer's margins, and our data show that an optimal mix of new- and used-equipment

² For more about the circular economy and Renault, see Hanh Nguyen, Martin Stuchtey, and Markus Zils, "Remaking the industrial economy," *McKinsey Quarterly*, February 2014, on mckinsey.com.

sales can buffer earnings during economic down cycles. At one truck manufacturer, for instance, sales of used vehicles rose by 60 percent between 2007 and 2010, compensating for a 30 percent decline in new-vehicle sales.

Increasing the influence of finance units

Financing packages, which influence decisions at the point of sale, can streamline the customer's purchase experience and make companies more willing to meet competing offers. Most significantly, captive finance arms, particularly those that are tightly aligned with sales and service units, are the one part of an OEM that has continuing points of contact with customers. These units can be the glue that maintains their loyalty, targeting them with new offers for equipment at key touchpoints on the decision journey and creating incentives for accelerated equipment buybacks that speed up sales cycles. Our research shows that loyalty to OEMs increases substantially when customers use a captive finance unit—70 percent of them sign up for repeat business. We have also found that well-integrated captive units contribute twice as much to operating margins as stand-alone units do.

Aligning dealers' roles with strategy

Many customer interactions also take place at dealerships, so dealers need information and financial tools to develop a life-cycle approach. With the right information, they and the OEM have a shared view of the entire installed asset base. This shared transparency can itself improve coordination between OEMs and dealers as both look to increase margins by expanding brand reach—for example, with sales of used equipment to new customers. The promotion and management of certified-used-equipment programs increases parts and service revenues. Cross-dealer information allows OEMs to better manage inventories of new and used equipment across dealer networks, maximizing sales for both dealers and OEMs while lowering their capital costs. This approach supports higher residual values by making it less likely for equipment to end up at auction, where its resale value is typically lower.

Two case studies

Two examples—one from a carmaker, the other from a heavy-equipment OEM—show how these principles create value for all the participants in the sales channel, from the OEM down to the end user.

An automaker establishes a virtuous cycle

The management of residual values was a key element of a complete rethink of the sales-channel strategy of one automotive OEM. After initiating a certified-vehicle program with a small group of dealers, the company monitored its resale-value data closely and found that the results far exceeded expectations. It marshaled the new data and experience to expand the program rapidly across its dealer network, allowing it to build an even more comprehensive database on resale prices, vehicle use, and customer behavior.

The OEM and its dealers found that the higher-than-expected residual value gave them a significant pricing opportunity for new cars (Exhibit 1). Armed with the knowledge that resale values were averaging 60 to 65 percent of invoice prices—compared with 50 to 55 percent at competitors—the OEM and its dealers could reduce both the customers' down payments at signing and monthly leases by as much as 10 percent. The OEM found it could actually increase list prices and still undercut competitors on total costs to customers, taking into account the higher value achieved on resale.

Higher margins allowed the company to offer free maintenance during the first few years of ownership. That further supported residual values, since the used cars coming in were on average of higher quality, having been better maintained by the dealers. Working with finance teams, the company also devised market-beating cash incentives for early lease terminations and vehicle buybacks as a way to sell new vehicles, thus increasing customer loyalty to the brand and building a higher-quality used inventory to improve the profitability of the dealer network. Greater leasing leverage also helped the OEM upsell additional options and option bundles, from entertainment systems to richer interiors, netting additional dollars per vehicle, though monthly payments were still below those of competitors.

Other evidence indicated that the company's approach was successfully changing behavior among target consumers. The share

Exhibit 1

One automotive player has been an industry leader in implementing the virtuous cycle.

Customer management and pricing

Has higher levels of conversion from dealer visits to purchases

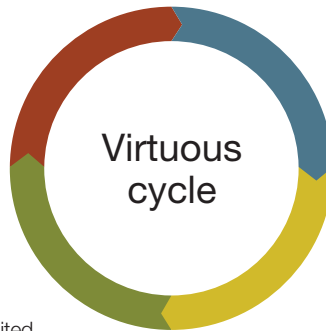
Prices its products 8–10% higher than those of competitors because its brand equity is stronger

Financing and service offerings

Leverages leases to raise sales volumes and upsell customers

Advertises residual value (eg, resale) of 60–65% vs competitors' 50–55%, making payments more affordable

Captive finance arm able to customize marketing offers



Residual-value management

Offers free maintenance for a limited time—competitors' total cost of ownership (TCO) tends to be higher

Actively manages certified used business; competitors do not

Dealer alignment and incentives

Dealer margin is higher because of higher average revenue per car

Dealer receives higher margins through parts and services

Source: McKinsey analysis

of leases as a percentage of the total sales base grew rapidly—from less than 50 percent to almost 70 percent within a few years. The better-equipped cars also enabled the OEM to raise average invoice prices by almost 10 to 15 percent over the same period for the same models.

Dealers, meanwhile, had incentives to attract more vehicles for certification and resale. Nearly two-thirds of the customers returned their vehicles, exceeding the industry average. That closer relationship has also paid off in higher growth rates for the parts and service businesses and in market-share gains. Finally, it helped the OEM and its dealers to navigate the financial crisis more successfully, since the certified used vehicles cushioned some of the drop in sales for new ones.

Establishing a virtuous cycle has also helped the OEM increase loyalty to its brand by almost a third, which further supports profitable growth thanks to lower customer-acquisition costs.

An equipment manufacturer maximizes the virtuous cycle’s impact through smarter financing

A captive finance arm at one heavy-equipment manufacturer served as a market and customer-research and -information hub. The finance unit tracked residual values and analyzed customer profiles, thereby allowing the OEM to vary its leasing and other financial offers by type of customer segment. This “cascading” approach (Exhibit 2) allowed the OEM to plan multiple deals for the same asset—usually one for new equipment and two to three for later resale of used equipment—according to the preferences of customers. This not only increased the profitability of each of these

Exhibit 2

In practice, the virtuous cycle is best implemented through a cascading approach to sales.

Example of heavy-equipment manufacturer (OEM)

OEM's and channel partners' sales approach				
Equipment cycle	Buyer-segment needs	2008	2011	2013
N	Values uptime and financial flexibility	Customer A: Leases new equipment in 2008	Customer A: Returns original equipment at end of term Leases another new equipment offering in 2011	Customer A: Returns 2011 equipment early, terminates lease, and leases another new equipment offering in 2013
			Customer B: Buys certified pre-owned (CPO) equipment returned by Customer A Opts for extended warranty and for financing	
N+1	Values reliable equipment at a fair price			Customer C: Buys used equipment owned by Customer B with warranty and financing
N+2	Price sensitive, but still needs decent reliability			

Source: McKinsey analysis

sales transactions but also helped the OEM to plan inventory and supply more effectively.

Further, as a result of the new survey data showing that customers would be more likely to purchase maintenance contracts if the availability of credit was expanded, the company began offering extended financing packages to cover the cost of parts and service. The finance unit also suggested that the OEM guarantee the residual value of its equipment in some select cases, to reduce the perceived risk of owning new gear.

In addition, the finance unit's market research also found that some segments in the company's customer base were willing to pay a premium for guarantees of equipment uptime. The OEM now writes these guarantees into some sales agreements for new equipment, while used-equipment customers signing on for certified programs get powertrain warranties. Furthermore, the company also created a rental unit when it learned that it was missing a segment of customers with only an occasional need for equipment—a segment that overlapped in part with current owners.

The finance arm also runs a newly acquired auction-services unit that helps manage used equipment and thereby bolsters the market strength of the OEM's far-flung garage and field-service network. In exchange for agreements to buy equipment back at guaranteed prices, the auction unit mandates maintenance by company-trained technicians—helping to maintain a cadre of highly skilled personnel. Overall, these efforts have contributed to the OEM's revenue growth, which is multiple times the industry average.

Pushing the organization forward

Supporting the channel collaboration necessary to create and capture value will typically require specific process steps by OEMs, as well as a rethink of their incentive structures and use of IT. In most cases, it will suffice to have a small team to promote and support deeper cooperation and teamwork among key sales-channels players—for instance, product development, parts, service, finance, and dealer networks. This team can also forge important links to relevant corporate functions within the OEM. Three areas of focus are particularly useful as these small teams get started.

Map the product's journey

To begin, sales and marketing leaders should identify the broad range of opportunities for influencing and strengthening engagement with channel partners and customers. It's especially useful for an OEM to map the journey its products make as they travel from "cradle to grave"—and to combine this with better data on customer experiences. Six months before the lease packages of one OEM expire, for example, it uses data on customers to begin guiding them to a cascade of choices around the resale, refinancing, or disposition of products at each of the key points in the asset journey. The goal is to maximize loyalty to the OEM's brand.

The same piece of equipment, for instance, may be deployed for different purposes, depending on whether it is used or new as one farm-equipment OEM discovered after sales-trend analysis revealed that customers employed new machines primarily to harvest sugar and used ones to harvest other agricultural products. Understanding those differences allowed product designers to give a new generation of equipment features that made it more attractive to grain farmers during its second life.

Change organizational incentives

New cooperative models won't take root if P&Ls for financing, service, and sales of new or used equipment are siloed within the OEM. Most organizations will need to reconfigure performance metrics to span asset life cycles, upending traditional practices that reward increased sales volumes or margins at individual units. We've found that giving a senior executive ownership throughout the life cycle provides that person with the necessary overview of the whole journey, improves cross-channel coordination, and realigns discordant incentive programs. This does not mean that a massive reorganization is needed right away. Cross-functional teams with dynamic senior leadership and sponsors can move the needle significantly in the early stages. Retooling the IT behind performance systems is another critical step in the quest to harness the profitable growth benefits of the virtuous cycle.

Use IT to empower channel partners

Channel partners often lack technology that can fast-track new practices. One OEM has tackled the tech gap with a systems application that links dealer inventories. That has paid dividends in

two ways: by lowering inventory investments and by enabling local sales teams to close deals more quickly when stocks are low and customers urgently need equipment.

Better IT tools also allow dealers to monitor equipment and alert customers to take action. A sophisticated product-support team at one OEM assembled data on every installed piece of gear and created an easy-to-use app for dealers, who now communicate with customers when maintenance deadlines are approaching. Next-generation sensors have steadily automated data gathering, so dealers have a minute-by-minute read on equipment use and maintenance needs.



It's a truism that B2B businesses, as compared with their B2C counterparts, are in a better position to know and predict the behavior and decision processes of their channel partners and end users. But new data sources, combined with advanced analytics, suggest that there is no room for complacency. As novel customer and market information shines a new light on the channel and on the economics and actions of customers within it, OEMs are discovering that they can intervene to shape and coordinate behavior and to enhance profitable top-line revenue growth and shareholder value significantly. They are realizing that they're no longer just in the business of selling new vehicles and equipment. As they establish a virtuous cycle, they are instead maximizing economic value over the lives of the assets they sell.

Through the virtuous cycle, the leaders are establishing a new paradigm by moving from selling equipment to treating each unit as an asset whose economic value should be maximized. ○

The authors wish to extend special thanks to Mohammed Aaser for his leadership and to John Callies, Adeline Dougherty, and Arjun Khurana for their contributions to this article.

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Illustration by Jean-François Martin

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Perspectives on the long term

Dominic Barton and Mark Wiseman

What will it take to shift markets and companies away from a short-term way of thinking?

The call to reform capitalism seems both less and more urgent the further we travel from the Great Recession of 2008. Less so because that event recedes in memory—and more so because, nearly seven years after the crisis, we’ve yet to make meaningful reforms, despite many calls to action.¹

One issue is particularly essential: shifting markets and companies from “quarterly capitalism” to a true longer-term way of thinking, thereby renewing the fundamental ways we govern, manage, and lead today’s corporations. Achieving that change, however, requires wide-ranging shifts in both mind-set and practice. How might these be accomplished? For insight, we invited leading executives and academics to contribute essays to *Perspectives on the Long Term* (FCLT, March 2015), a book in which broad cultural observations help frame more specific viewpoints from each part of the investment value chain.

While *Perspectives on the Long Term* takes a comprehensive approach, what follows in this article is necessarily more impressionistic—a sampler, if you will, of today’s best thinkers on what it might take to instill long-termism into the capitalist system. Those writing here include Nitin Nohria, dean of Harvard Business School; Nicholas G. Carr, author of *The Glass Cage: Automation and Us* (W. W.

¹ We have tried to contribute to this debate as well. See “Where boards fall short,” by Dominic Barton and Mark Wiseman, *Harvard Business Review*, January 2015; “Focusing capital on the long term,” by Dominic Barton and Mark Wiseman, *Harvard Business Review*, January–February 2014; and “Capitalism for the long term,” by Dominic Barton, *Harvard Business Review*, March 2011, on hbr.org.

Norton & Company, September 2014); Lim Chow Kiat, group chief investment officer at GIC; Ronald P. O’Hanley III, former president of asset management and corporate services for Fidelity Investments; and Charles Tilley, chief executive of the Chartered Institute of Management Accountants.

Our selection starts with two insightful looks at the psychological and technological obstacles to reform before moving on to more granular recommendations for board governance, corporate reporting, and the language we use when we talk about the performance of our investments.

Confronting psychology and technology

Nitin Nohria: All CEOs have aspirational long-term goals. They all want to make their companies better and stronger over the long term. Yet when it comes to priorities and plans of action, few have headlights that can shine further than two or three years. So while every CEO talks about managing for the long term, the reality is that the crush of immediate concerns and the uncertainty of the future lead them to focus on the short term. This tension between long-term intention and short-term action is one of the great challenges of modern management.

It’s become almost customary for CEOs to accuse capital markets of creating undue pressure; it’s the scourge of meeting quarterly earnings expectations, they argue, that prevents them from creating long-term economic and shareholder value. Or it’s the structure of incentives for both CEOs and financial-market participants that makes short-term results more alluring than long-term gains.

I believe there is an equally important—and less explored—set of internal forces that contribute to this myopia. Three forces that I consider most important are the cognitive asymmetry between the uncertainty of long-term actions and the certainty of short-term actions (which is to say that leaders need certainty, and that can be easier to find in the short term); the need to maintain ongoing credibility to continue to enjoy the license to lead (which is to say that leaders need followers, who may have shorter time horizons);

and the desire to leave a legacy, with the knowledge that it is difficult to do so (which is to say that leaders need a legacy, even though they're more likely to be forgotten).

These internal, psychological forces that drive CEOs to favor the short term over the long term have at least one similarity with the external, capital-market forces that are usually described as the primary driver of short-termism: they are extremely difficult to counteract. But they are worth keeping in mind as we diagnose the causes of the growing managerial myopia. Managerial time horizons are certainly influenced by incentives and compensation, by the loud criticism of activists, and by the real pain (or anticipated pain) that occurs when a company misses earnings and its stock slides. But there are quieter, less celebrated, more psychological forces at work here, as well—and trying to understand them better can be a useful step in trying to design smart counterweights.

Nick Carr: In a speech delivered back in 1969, when the Net was in its infancy, the social scientist and future Nobel laureate Herbert Simon posited that a glut of information would produce a dearth of attention. Since then, psychologists and neuroscientists have learned a great deal about how our brains respond to distractions, interruptions, and incessant multitasking. What they've discovered proves how right Simon was—and underscores why we should be worried about the new digital environment we've created for ourselves. When it comes to thinking, we're trading depth for breadth. We're so focused on the immediate that we're losing the ability to think more deeply about the long-term implications of complex problems.

Why would we allow ourselves to become so reliant on a technology that ends up hampering our thinking and foreclosing our opportunities to excel? One reason appears to be biological. Experiments suggest that we have a deep, primitive inclination toward distraction. We want to know everything going on around us, a trait that probably helped keep us alive when we lived in the wilds. The very act of seeking out new information has been found to trigger the release of the pleasure-producing chemical dopamine in our brains. We're rewarded, in other words, for hunting and gathering data, even if the data are trivial, and so we become compulsive in checking the networked gadgets we carry around with us all day.

But it's not just biology. It's also society. Businesses and other organizations have been complicit in encouraging shallow and distracted thinking. Tacitly or explicitly, executives and managers send signals that they expect employees to be constantly connected, constantly monitoring streams of messages and other information. As a result, people come to fear that disconnecting, even briefly, may damage their careers, not to mention their social lives. Organizations gain the benefits of rapid communication and swift exchanges of data. But what they sacrifice is the deepest forms of analytical and critical thinking—the kinds of thinking that require a calm, attentive mind. The most important work can't be done, or at least can't be done well, in a state of distractedness, and yet that's the state companies today have come to promote.

What's more, we're at the dawn of a new era in automation. Thanks to advances in robotics, machine learning, and predictive analytics, computers are becoming adept at jobs requiring sophisticated psychomotor and cognitive skills—tasks that until recently we assumed would remain the exclusive preserve of human beings. Computers are flying planes and driving cars. They're making medical diagnoses, pricing and trading complex financial instruments, plotting legal strategies, and running marketing campaigns. All around us, computers are making judgments and decisions on our behalf.

There has been much discussion about the effects of rampant automation on the economy and on the labor market in particular. There has been much less attention paid to its effects on human talent and motivation. But what decades of human-factors research tell us

Businesses and other organizations have been complicit in encouraging shallow and distracted thinking.

is that when computers and other machines take challenging tasks away from us, we turn into observers rather than actors. Distanced from our work, we lose our focus and become even more susceptible to distraction. And that ends up dulling our existing skills and hampering our ability to learn new ones. If you've ever gotten lost while following the step-by-step directions of a GPS device, you've had a small lesson in the way that computer automation erodes awareness of our surroundings and dulls our perceptions and talents.

If computers were able to do everything that people can do, this might not be such a problem. But the speed and precision of computers mask their fundamental mindlessness. Software can do only what it's told. Human beings, blessed with imagination and foresight, can do the unexpected. We can think and act creatively, and we can conceive of a future that is different from and better than the present. But we can only fulfill our potential if we're engaged in the kind of difficult and subtle work that builds talents and generates insights. Unfortunately, that's exactly the kind of work that software programmers have been taking away from us to deliver short-term efficiency gains and indulge our sometimes self-defeating yearning for convenience.

Reframing mind-sets and language

Lim Chow Kiat: In Singapore, long-termism is our national ethos. A willingness to forgo short-term gratification and keep faith with the fundamentals has served us well. At the heart of GIC's investment philosophy is our value discipline. We look for the compounding of fundamental value and opportunities in price–value divergence. Both require a long-term orientation. We are also mindful that long-term investing does not oblige us to buy and hold for long periods. The holding period depends more on price and value than time. While we obviously prefer market prices to move up quickly to reflect our assessed valuations, we are prepared to wait longer for the convergence than most investors are.

Over the years, we have learned that it is actually not the time horizon that matters most but rather the mind-set and discipline to

base investments on fundamentals consistently. In particular, it is important to have the ability to assess value and maintain price discipline in the face of market fluctuations and uncertainty. Having a long time horizon enhances this ability, especially in a world full of short-term investors.

It's also the case that nomenclature is destiny. The right word engenders the right attitude and the right behavior. From how a report is presented to how an investment loss is explained and how a concept is described, at GIC we are meticulous about word choice, as well as how we deliver the message. For example, we avoid displaying only short-term performance results, especially at important forums, to prevent the perception that we emphasize short-term results. We avoid using a phrase such as "consistent results," so that our teams do not wrongly focus on quick bets and quarterly gains. We prefer to say "sustainable results." We find that a nice saying such as "the long term is but a series of short terms" is extremely harmful. In our view, it is not true—at least not for investing. We would correct someone in our organization if he or she used that phrase or one like it. The drivers of short-term investment outcomes and the drivers of long-term investment outcomes are very different. In most cases, the former have to do with market emotions, the latter with fundamental developments, such as competitiveness. Think of Benjamin Graham's "voting" and "weighing" machines. The wrong words can corrode, if not corrupt, our process.

Upgrading governance and reporting

Ronald O'Hanley: Unless we can make long-term thinking the driving force behind the mission and governance activities of boards, no amount of change to management incentives or investor behavior or the like will be sufficient to ensure a focus on the long term.

It's not as though boards took a vote and decided to ignore the long term. We need to recognize that the role of the board and the job of director are more complex and demanding than ever. Moreover, some of those demands are in direct conflict. On the one hand, intense pressure exists to ensure attractive results every quarter. Yet stable, sustainable economic growth over the long term often requires companies to put long-term goals ahead of short-term gains.

Making that trade-off effectively and accommodating other growing demands require greater expertise and a substantially larger time commitment than is typical of many boards today. The executive–board relationship and, to some extent, the basic management–board governance model must evolve. The job of filling board seats becomes even more critical, requiring a well-thought-out strategy to assemble the needed talent and expertise. Companies and their stakeholders must be prepared to increase the compensation of directors and support boards in a variety of other ways.

A primary lever is board recruitment, which becomes an even more critical function when viewed through the lens of a long-term focus. Most boards have appropriately focused on broadening their diversity. Diversity of thought is at least as important as other forms of diversity. Each vacancy should be considered an opportunity to add additional expertise and perspective to the board. That diversity can be deep experience within the industry, firsthand experience with a particular challenge the company faces, or even a deep understanding of a particular set of stakeholders, such as a customer segment, supplier group, or particular geography. Collectively, the directors should bring experience, expertise, diversity of perspectives, and wisdom to test strategy and become true partners to the CEO.



Charles Tilley: Over the past 30 years there has been a fundamental shift in macroeconomic value. More than 80 percent of the market value of companies now lies in intangible assets.² Yet many accounting practices and processes do not reflect this shift. This new set of circumstances urgently requires a change in behavior to focus more on long-term value creation.

Integrated reporting (IR) helps organizations address the specific concerns of long-term investors. It is essentially a narrative report, supported by traditional financial reports, that integrates all the factors material to an understanding of the value created by an organization and its future potential in a clear and concise manner.

The link between integrated reporting and long-term investment has been demonstrated by George Serafeim at Harvard Business School.³ He studied more than 1,000 US firms to find the correlation between the use of IR and the time horizons of the investor bases they attracted over the period from 2002 to 2010. His research included not only those firms that prepared integrated reports but also those that reflected the principles of integrated reporting in their full range of published reports. Serafeim found that the greater the degree of integration included within firms' reporting, the more long term their investor bases were.

Novo Nordisk, the Denmark-based global healthcare company that has, for a number of years, published long-term targets, provides a good example. Its latest ones include the usual profit, sales, margin, and cash metrics but also targets that, although not directly financial, support long-term financial performance. These fall into two groups: social targets, which include employee motivation and senior-management diversity, and environmental targets, which include energy and water use, emissions, and waste.⁴

² See "Ocean Tomo announces 2010 results of annual study of intangible asset market value," Vocus/PRWEB, April 4, 2011, prweb.com.

³ See George Serafeim, "Integrated reporting and investor clientele," Harvard Business School working paper, number 14-069, February 2014 (revised April 2014), hbs.edu.

⁴ See *Novo Nordisk Annual Report 2013*, Novo Nordisk, 2014, novonordisk.com.

Research undertaken by the Chartered Institute of Management Accountants and Tomorrow's Company (a London-based international think tank) emphasizes the value of integrated reporting beyond its role as a reporting framework.⁵ First, it can help an organization to better understand and connect the disparate sources and drivers of long-term value to improve the formulation of strategy and decision making. In addition, it provides a synthesis of how value is created, helping to win trust and secure a company's reputation by encouraging better relationships with investors, employees, and other stakeholders. A tool kit of questions published with the research aims to promote boardroom discussion on integrated reporting and in particular the importance of a thorough understanding of the organization's business model and how it creates value. ○

⁵ See *Tomorrow's Business Success: Using Integrated Reporting to help create value and effectively tell the full story*, Chartered Institute of Management Accountants and Tomorrow's Company, in association with the International Integrated Reporting Council, 2014, tomorrowscompany.com.

Dominic Barton is McKinsey's global managing director, and **Mark Wiseman** is the president and chief executive officer of the Canada Pension Plan Investment Board. This article is excerpted from a series of essays included in the upcoming book *Perspectives on the Long Term* (FCLT, March 2015).

Extra Point

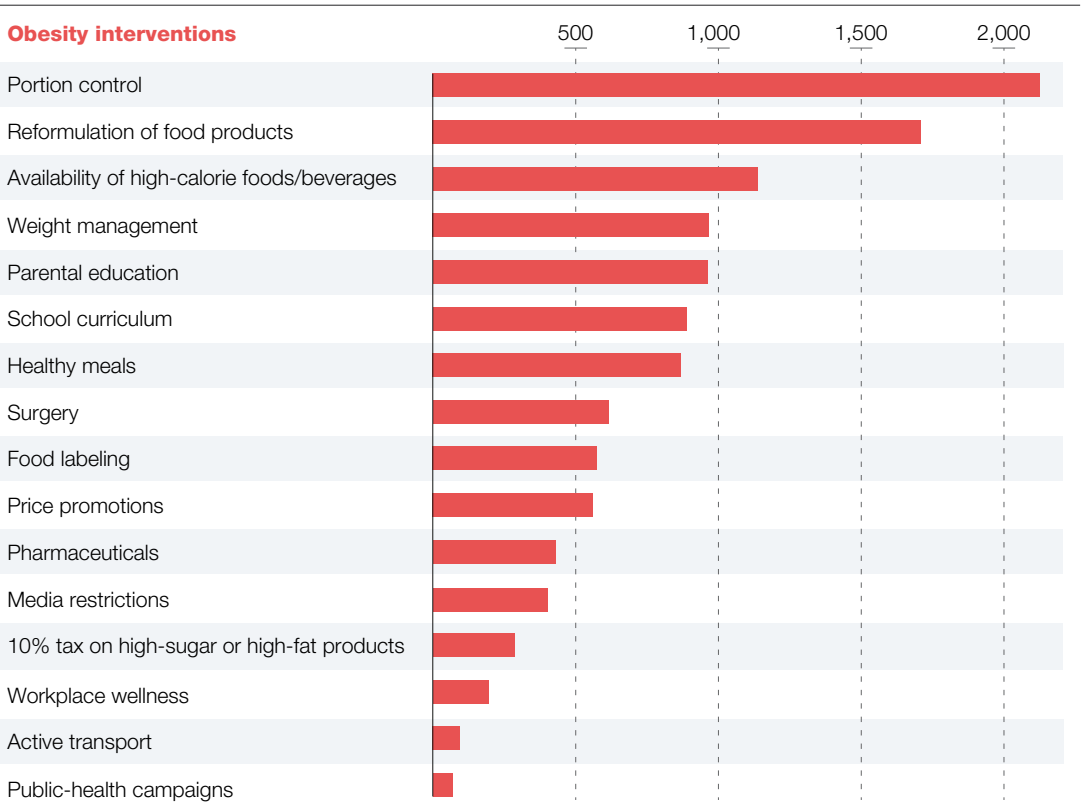
Time to tackle obesity

Richard Dobbs, James Manyika, and Corinne Sawers

The global economic cost of obesity is roughly \$2 trillion, or 2.8 percent of global GDP. That is equivalent to the GDP of Italy or Russia and about the same as the global cost of smoking or of armed conflict, war, and terrorism. Although there is no silver bullet, the McKinsey Global Institute has identified 18 groups of interventions (16 with sufficient data to analyze) that are now being discussed or piloted somewhere in the world and would be cost effective to society if scaled up.

Example,
United Kingdom

Impact: number of saved years that would have been lost or rendered economically unproductive by disease (ie, DALYs),¹ thousands



¹ Impact is estimated and measured in disability-adjusted life years (DALYs) across full 2014 population in the United Kingdom. Source: Literature review; expert interviews; McKinsey Global Institute analysis

Richard Dobbs and **James Manyika** are directors of the McKinsey Global Institute, where **Corinne Sawers** is a fellow.



For more, see *Overcoming obesity: An initial economic analysis*, McKinsey Global Institute, November 2014, on mckinsey.com.

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