

April 2013



## Simplify IT

Six Ways to Reduce Complexity

# IT Advantage

- ◇ *Telecom-IT Transformation Down Under: An Interview with Telstra's CIO*
- ◇ *Telecom IT: How IT Is Driving Business Value at European Telcos*
- ◇ *Secrets of Online Marketplaces*
- ◇ *IT Outsourcing: Expectations Versus Facts*
- ◇ *Unleashing the Value of Consumer Data*

The Boston Consulting Group (BCG) is a global management consulting firm and the world's leading advisor on business strategy. We partner with clients from the private, public, and not-for-profit sectors in all regions to identify their highest-value opportunities, address their most critical challenges, and transform their enterprises. Our customized approach combines deep insight into the dynamics of companies and markets with close collaboration at all levels of the client organization. This ensures that our clients achieve sustainable competitive advantage, build more capable organizations, and secure lasting results. Founded in 1963, BCG is a private company with 78 offices in 43 countries. For more information, please visit [bcg.com](http://bcg.com).

# Preface



Today's business environment, often described as "two speed" or "the new new normal," presents sizable challenges for companies. To win, companies must possess a number of core capabilities. One of the most critical is optimized IT. Adaptive, simplified IT can help the business achieve major improvements in efficiency. It can also enable innovation in the digital arena and drive business transformation.

The current issue of *IT Advantage* sheds light on how companies can push their IT to this level. It begins with thoughts on how to reduce complexity in the IT environment. Real IT simplification can deliver benefits that go well beyond cost reduction. But sustainable simplification demands knowledge of where to focus and a holistic approach.

Next is an interview with Patrick Eltridge, CIO of Australian telecommunications giant, Telstra. Mr. Eltridge discusses his transformation of the company's IT function, his emphasis on cloud and agile technologies, and the challenges he sees ahead for the industry, especially its IT. We continue the industry theme with a look at how IT is creating value at European telcos. The article reveals that IT departments are focused not just on reducing spending but also on ensuring that what they do spend is spent wisely and has maximum impact on the business.

Next we look at online marketplaces in the consumer goods and retail space. This article examines the pros and cons of such marketplaces from the vantage point of both retailers and suppliers. We follow that with an article on how businesses can derive maximum value from IT outsourcing. IT outsourcing has been popular for some time, but companies still struggle to realize its full value. We discuss the root causes of the problems they encounter and how they can get their efforts back on track.

The issue concludes with a discussion of a critical challenge for many companies—the management of consumers' personal information. The article outlines the steps businesses can take to ensure that they both capture the opportunities and manage the risks. This topic is one that BCG has focused on extensively, including work done in partnership with the World Economic Forum.

I hope you enjoy these articles. Please send any comments to [ITAdvantage@bcg.com](mailto:ITAdvantage@bcg.com).

Ralf Dreischmeier  
*Global Leader, Information Technology Practice*

# Contents

FOCUS	
Simplify IT: Six Ways to Reduce Complexity	2
FOCUS: Q&A	
Telecom-IT Transformation Down Under: An Interview with Telstra's CIO	10
INDUSTRY SPOTLIGHT	
Telecom IT: How IT Is Driving Business Value at European Telcos	13
VIEWPOINT	
Secrets of Online Marketplaces	15
FOCUS	
IT Outsourcing: Expectations Versus Facts	19
OUTLOOK	
Unleashing the Value of Consumer Data	23

# SIMPLIFY IT

## SIX WAYS TO REDUCE COMPLEXITY

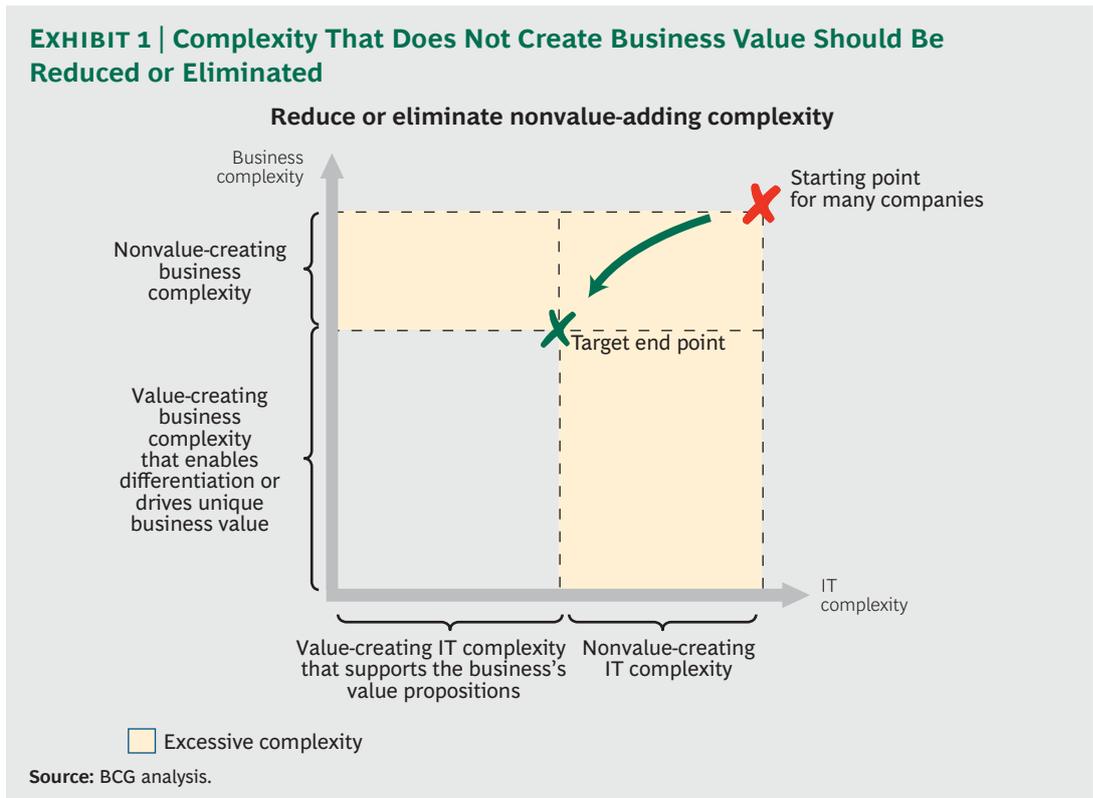
by Michael Grebe and Enno Danke

**A** COMPLEX IT ENVIRONMENT IS often regarded as part and parcel of complexity in a company's business operations. Yet while some IT complexity is indeed inevitable and can, in fact, be a major driver of business value—by contributing to the creation of a more differentiated offering, for example—much complexity is ultimately unnecessary and can translate into higher

costs and reduced agility and flexibility. (See Exhibit 1.)

Reducing IT complexity that does not add value is difficult, however, as complexity typically builds gradually and stems from multiple causes. Mergers and acquisitions, weak IT governance with decentralized decisionmaking, and a lack of understanding by the busi-

**EXHIBIT 1 | Complexity That Does Not Create Business Value Should Be Reduced or Eliminated**



ness of the costs of complexity are three common drivers. Another is the historical penchant of IT organizations to say yes to the business's requests without necessarily stepping back and taking a critical view of the longer-term, companywide ramifications of those myriad individual decisions.

But unnecessary complexity can be greatly reduced, if not eliminated, with the right approach. And the impact on IT costs and performance can be significant. Indeed, we estimate that an effective simplification effort can reduce application and infrastructure costs by up to 50 percent and total IT costs by as much as 30 percent. It can also give the IT organization far greater flexibility and agility and can improve its overall ability to support the company's business objectives.

## Levers for Reining In Complexity

Successfully tackling unnecessary IT complexity demands a multipronged approach that covers both business-driven IT complexity and complexity that the IT function can address unilaterally. The six drivers discussed below can serve as the basis for such an approach and can be pursued simultane-

ously, sequentially, or in isolation. (See Exhibit 2.)

**Intelligent Demand Management.** Although IT unit costs continue to trend downward in general, most companies' overall IT spending is rising because of rapidly increasing demand from the business in terms of both volume and service level. Much of this increase stems from ignorance on the business side: due to a lack of transparency into IT costs, the business may request a degree of IT support for a given product or service that is disproportionate to the business value created by that product or service. By providing a comprehensive look at IT costs and identifying and prioritizing cost drivers and cost reduction levers, the IT organization can help the business better understand its use of IT resources and identify ways to reduce them in a manner that does not compromise business value.

To provide such transparency, the IT organization will need to answer such questions as the following:

- What is the actual IT cost generated by each business unit compared with the cost

### EXHIBIT 2 | Reining In Excessive Complexity Demands a Multipronged Approach

Intelligent demand management	Provide the transparency necessary for the business to make informed decisions about its demand for IT services	<ul style="list-style-type: none"> <li>• Improved interactions between the business and IT</li> <li>• Reductions in business demand for IT of 10%–15%</li> <li>• Potential related IT cost savings of 4%–8%</li> </ul>
Scenario-based application rationalization	Optimize the number of applications through consolidation, replacement, and decommissioning using a top-down, bottom-up approach	<ul style="list-style-type: none"> <li>• Decommissioning of up to 40% of applications</li> <li>• Greater speed and adaptability to changing business requirements</li> <li>• Potential reduction in total IT costs of 15%–20%</li> </ul>
Infrastructure technology-pattern reduction	Reduce the number of patterns in the IT infrastructure, thereby minimizing the variety of technologies, processes, and skills necessary for application delivery	<ul style="list-style-type: none"> <li>• Potential to reduce the number of patterns by half, with a resulting savings of 5%–15% of total IT costs</li> <li>• Greater ability to leverage economies of scale</li> </ul>
A simplified IT organization and an enabled IT workforce	Trim management layers and optimize spans of control; ensure an appropriately sized and skilled IT staff	<ul style="list-style-type: none"> <li>• Lower costs, faster decisionmaking, and greater transparency</li> <li>• A workforce optimized for current and future challenges</li> <li>• A potential reduction in IT management staff of 20%–30%</li> </ul>
Effective governance and simplified processes	Establish a comprehensive framework to optimize business-IT governance; simplify processes through use of lean and agile methodologies	<ul style="list-style-type: none"> <li>• Better alignment between the business and IT</li> <li>• Significant streamlining of processes</li> <li>• Shorten development times by up to 60% and free up as much as 40% of capacity in the affected processes</li> </ul>
A shared-services model and optimized sourcing	Adopt a shared-services model to service delivery; develop a unified, companywide sourcing model	<ul style="list-style-type: none"> <li>• Optimized use of internal resources and greater ability to capture scale and factor cost advantages</li> <li>• Greater negotiating power with vendors</li> </ul>

Source: BCG analysis.

currently allocated? (Answering this question requires knowledge of the cost per application for maintenance, support, and development, as well as an understanding of how applications are being used by different business units.)

- Is the cost per unit for key IT services in line with market benchmarks (for example, the cost of outsourcing those services)?
- What is the current business volume for each IT service, and are there opportunities to reduce that volume for key services without lowering the business value generated (for example, by omitting unnecessary e-mails sent to clients and thereby lowering mainframe transaction volumes)?
- Are there opportunities to achieve savings by reducing IT service levels (for example, by limiting IT support for mobile devices in favor of support for desktop or notebook PCs)?

Armed with this information, the business can make informed judgments about its consumption of IT services—in terms of volume and service level—relative to business outcomes. A global financial-services institution, for example, found that it could realize sizable savings by scaling back its data-recovery capabilities: the business only needed to ensure recovery within 24 hours, but its existing system had been designed to provide recovery in a fraction of that time. Another company determined that the 24-7 “gold standard” IT support it provided employees was excessive, and that a “silver plus” level of service—six days a week for 18 hours a day—would be adequate. Similarly, a business might conclude that not all of its customers merit “white glove” service quality. For example, another global financial-services institution determined that the e-mails it sent its customers to confirm transactions could be considerably simplified—by removing home addresses from the messages, for example—without reducing customer satisfaction.

Efforts to optimize business demand for IT support can translate into solid bottom-line benefits. Our experience indicates that demand can

be reduced by up to 15 percent, with a related IT cost savings of nearly 10 percent, with no loss of business value.

**Scenario-Based Application Rationalization.** A company’s application landscape is shaped by several factors. These include business-driven requirements (the need to support a new business channel or a more flexible product design, for instance), operations-driven requirements (such as the automation of business processes), technical requirements (including the demands of legacy systems), regulation-based requirements (such as those driven by Basel II regulations in the banking sector), and corporate-strategy considerations (for example, the effects of restructurings and M&A activity).

In many companies, this confluence of demands, combined with weak architecture governance and the absence of a clearly defined target outcome, has led to a cluttered, inefficient application landscape. Fortunately, a range of levers is available to address the problem; these include the bottom-up consolidation of functionally redundant applications and the replacement of selected applications with better or less complex ones. For many companies, the scope for application rationalization is vast. Indeed, for long-established enterprises, a decommissioning of up to 40 percent of applications and a reduction of 15 to 20 percent of total IT costs are often possible.

Application rationalization, it should be stressed, is not just about reducing run-the-company IT costs. Simplifying the application landscape can also improve change-the-company IT-cost efficiency and translate into a faster, more agile IT function—one better able to support business innovation and new-product development (for example, by reducing the number of interfaces and dependencies). A European bank concluded that more than 50 percent of its 500-plus applications were strong candidates for decommissioning and that nearly a third could be decommissioned immediately. (See Exhibit 3.)

There are three prerequisites for successful application rationalization:

- A clear commitment from the company’s leaders

- Proper funding, since the business case for rationalization efforts per se is not always attractive (one way to ensure sufficient funding is to introduce a “simplification tax” that every IT project “pays” to support rationalization)
- Disciplined tracking of application decommissioning—for example, through a simplification “cockpit” that monitors progress and facilitates communication of results to senior executives

**Infrastructure Technology-Pattern Reduction.** Just as the number of applications can swell over time, so can the number of technology patterns—that is, configurations of hardware, system software, and middleware elements—in the IT infrastructure. This can drive up IT complexity and operating costs. It can also prevent the company from realizing available economies of scale.

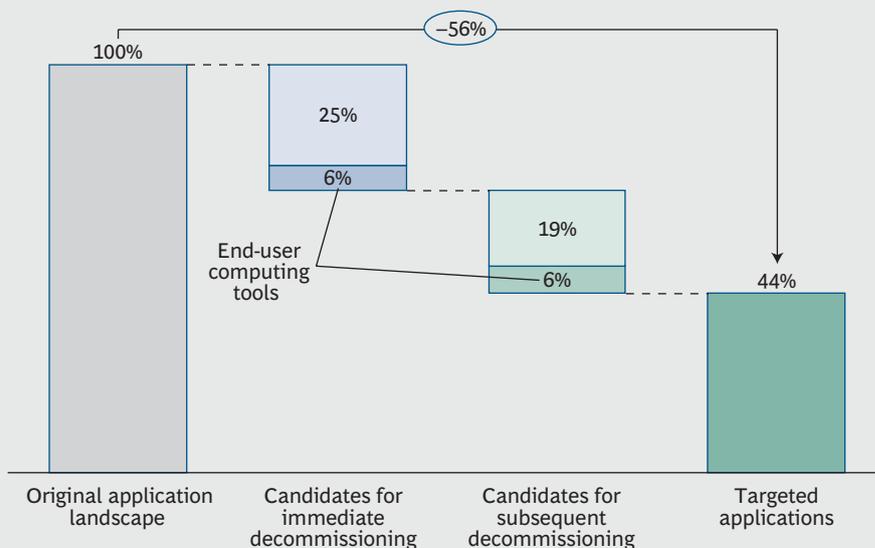
For most companies, the scope for technology pattern reduction is large. Many can safely reduce the number of patterns by half, with a potential resulting savings of up to 15 percent of total IT costs. A global manufacturing and sales company is a case in point. The company’s strategy of growth through acquisition had pushed the number of applications it

hosted to more than 9,000—and the number of technology patterns to more than 1,700. Each pattern had to be maintained; each pattern also reduced the company’s ability to leverage scale, as well as the speed with which it could provision and host new applications.

Seeking to radically streamline the environment, the company examined its technology patterns in search of commonalities and opportunities for standardization. It ultimately determined that just seven standard technology patterns would be sufficient to cover approximately 80 percent of its application needs. By enforcing this degree of standardization for the applications it hosted internally, and by increasing its use of virtualization and pushing for ever-greater standardization among its suppliers, the company aimed to realize substantial savings in IT infrastructure costs—roughly 40 percent over a three-year period.

A European insurance group offers another example. Over time, the company’s server landscape (driven by the common “one application, one server” approach) had grown quite complex and, as a result, inefficient, with an average 90 percent of installed server resources unused and 85 percent unused during peak times. By consolidating the server

**EXHIBIT 3 | More Than Half of a Bank’s Applications Were Candidates for Decommissioning**



Source: BCG analysis.

infrastructure into 20 standard patterns, the company created the precondition for a subsequent virtualization that allowed it to eliminate 83 percent of its server hardware and reduce its total server costs by 22 percent.

**A Simplified IT Organization and an Enabled IT Workforce.** Over time, a company's growth in size, business breadth, and regional presence can create four distinct types of problems for the IT organization. The first is excessive layering of the management structure. This can lead to cumbersome decisionmaking and reporting processes, making the IT organization slow, lacking in transparency, and difficult to steer. The second is spans of control that are designed around individuals rather than the nature of the work. This can translate into micromanagement or, alternatively, insufficient focus on detail and training, both of which can take a toll on productivity. It can also result in overly small spans of control, driving up management costs.

The third type of problem is an organization structure that is not based on clear design principles (one that separates govern, plan, build, and run processes, for example). This can result in redundancies and, at the other extreme, in scarce resources becoming "buried" in the organization. It can also lead to a blurring of roles and a resulting loss of focus by employees. The final type of problem is the absence of dedicated career paths for project managers and experts. This can result in suboptimal promotions (for example, technical experts being pulled away from their areas of expertise into general-management positions) and skills imbalances and shortages.

These four kinds of problems can lead to an inflexible and inefficient IT organization, one that is unable to adequately support the business in creating value. Fortunately, the potential for remedying such problems by simplifying the IT organization's structure is significant. In our experience, it can allow many companies to shed between 20 and 30 percent of their IT-management staff while simultaneously driving down costs and boosting the IT organization's agility and flexibility.

The IT division of the European bank discussed above, for example, was struggling to meet the business's requirements. A survey-based analysis of its roles and activities revealed that several functions, including application development and maintenance, were spread across multiple departments within IT—and within those departments, ownership and execution of these functions were dispersed. The resulting fragmentation, bottlenecks, and unnecessary management overhead were greatly impairing the IT organization's productivity. A series of levers—such as resizing units, optimizing spans of control, and reassigning work groups and functions to other departments in order to bundle competencies and maximize transparency—allowed the IT organization to significantly increase its performance while reducing headcount by roughly 20 percent.

In parallel with simplifying the IT organization's structure, companies should determine whether their IT workforce is adequately skilled and sized to meet current and future challenges—and what measures are needed to ensure ongoing preparedness. Another large financial-services company engaged in such an exercise in preparation for the multi-year rollout of a new IT-architecture and sourcing model. The company developed a detailed view of its needs by job function, followed by an analysis of potential declines in staffing resulting from retirement and other factors. The comparison made it clear that the company faced some critical skills shortages, such as infrastructure specialists and software-testing experts, as well as redundancies in roles related to soon-to-be decommissioned systems. Armed with this knowledge, it developed plans for eliminating the majority of identified shortages through the training and qualification (and sometimes the requalification) of existing staff, complemented by focused recruiting. The company was also able to address the oversupply situation without resorting to layoffs.

**Effective Governance and Simplified Processes.** In many companies, business-IT governance is not managed cohesively or from a holistic, firmwide perspective. Instead, decisions are made in siloed fashion within individual business functions or units, with

little thought given to how those decisions might affect other parts of the company or the company as a whole.<sup>1</sup>

A key to optimized business-IT governance and related processes is the establishment of a comprehensive governance framework. A single, overarching framework, one that has transparent guiding principles and is fully aligned with business governance, will not just increase understanding and alignment between the business and IT. It is also the prerequisite for linking business- and IT-planning processes in order to ensure that the company's limited funds for technology investments are prioritized across the company for maximum business benefit.

---

## Strict governance is essential to optimized IT-architecture management.

---

The experience of a major European utility is a case in point. The IT organization had been challenged to reduce IT spending. Yet, for the more than 1,000 projects in the project portfolio, there was neither a common, enterprisewide perspective on priorities shared by the business and IT nor a systematic process for identifying projects that overlapped different business units. To remedy these problems, the IT organization developed a common fact base that allowed it to identify pending projects that could be deprioritized, reduced in scope, or eliminated with no loss of business value. Key elements of this effort were the development of an understanding of each project vis-à-vis the business's planning and priorities and the integration of all projects into an enterprisewide project-portfolio planning and prioritization process with a single common interface across business units.

Strict governance is essential to optimizing both portfolio planning and prioritization and demand and supply management. But it is also critical to optimized IT-architecture management. Many companies lack a clearly defined target IT architecture or, if there is one, a means of enforcing adherence to the target.

This can lead to a buildup of complexity in applications and infrastructure, which strict governance processes can help prevent. The European bank discussed above, in an effort to make its application-rationalization effort sustainable, moved to formally strengthen its IT-architecture governance and related capabilities by creating a dedicated architecture unit and four new roles (IT enterprise architect, IT application and information architect, IT integration architect, and IT technology architect). These employees were tasked with defining binding standards, principles, methodologies, blueprints, and enterprise architectures. They were also empowered to vote in key planning sessions of the bank's IT expert advisory board and were thereby involved early on in the development of new-product and change processes. As a result, the bank was able to keep preventable complexity permanently out of its IT architecture.

In addition to instituting effective business-IT governance and related processes, companies need simplified processes in order to keep IT agile, flexible, and efficient. Lean tools and approaches, provided they are both properly deployed (with an end-to-end perspective and an eye toward continuous improvement) and accompanied by supportive changes in mindsets and behaviors, can help engineer a fundamental transformation in the targeted processes. The results can be significant, with permanent improvements in productivity, quality, and speed of execution coupled with reductions in waste, cost, and operational risk.

An automotive company used lean principles to address problems with its IT-application development. Inefficiency and waste in the process were rampant, with idle time and rework often representing more than half of total cycle time. Through the use of lean principles, the company was able to identify specific weaknesses and, critically, solutions—for example, the subdivision of large projects, alerts on projects facing difficulties, a strengthening of the project manager role, and better management of resources to avoid bottlenecks. These measures stand to cut the company's development time by more than 40 percent and deliver a savings of roughly €30 million.

Agile methodologies, too, can be a highly potent means of simplifying and improving processes. A large provider of energy-metering services that had recently adopted a new business model determined that it needed to overhaul its application-development process. The use of agile methodologies allowed the company to customize its software in small steps over time as the business came to terms with its new direction and the corresponding IT requirements became clearer. Because of this flexibility, the organization succeeded in achieving the maximum return on business value for the time and resources invested.

---

## Lean and agile methodologies are powerful IT-simplification tools.

---

Lean and agile methodologies are powerful IT-simplification tools. Indeed, we believe that they can significantly streamline core IT processes, shorten development times by up to 60 percent, and free up as much as 40 percent of capacity in the affected processes.

To thoroughly understand the current state of their business-IT governance and process capabilities—and to identify the steps necessary to improve those capabilities and the potential benefits of doing so—companies should consider performing a holistic assessment, using a tool such as the BCG Innovation Value Institute’s IT Capability Maturity Framework.<sup>2</sup>

**A Shared-Services Model and Optimized Sourcing.** In many companies, the IT function is decentralized. This can have a variety of causes, including past decisions to maintain a dedicated IT presence for each individual business line or to keep the IT organization of an acquired company completely or partially separate. But decentralization can lead to redundancies and inefficiencies, both in the internal delivery of IT services and in the company’s ability to efficiently source external goods and services.

To remedy this, many companies are establishing shared-services centers, which allow

them to optimally utilize internal resources and capture scale and factor cost advantages. A global insurance company, for example, whose operations were significantly siloed by location and business unit, made highly effective use of a shared-services model in an effort to improve its cost structure. The company already had in place a small shared-services center heading into the campaign, but it was not functioning effectively: there was mistrust between the center and the business units regarding service levels and pricing transparency, with the business units ultimately opting out of many shared services and choosing instead to recreate the functions locally.

In response, the company designed an enterprise-wide shared-services strategy for IT and other corporate functions and set as its goal a reduction in operating costs of 10 percent in the first wave of improvements and up to 30 percent in future waves. The setup and rigorous execution of this program enabled a step-change reduction in IT complexity that otherwise would not have been possible, with the company achieving greater standardization, consolidation, scale advantages, factor cost optimization, and productivity in the areas of IT infrastructure, end-user computing, enterprise applications, and IT organization. The effort also delivered many second-order benefits, including shorter delivery times, faster decisionmaking, and reduced risk—all of which helped drive acceptance of the shared-services model and make implementation a success.

The approach taken by a European financial-services institution illustrates the potential for a smooth transition to a shared-services model. In the first wave of measures, the company centralized the operations and IT of its subsidiaries at the national level. In the second wave, it introduced common governance and steering for those national units and harmonized its activity portfolio. Finally, the bank merged its national units and began to systematically leverage selective outsourcing opportunities—achieving an enterprise-wide shared-services center.

Whether as a separate effort or as part of the process of establishing a shared-services cen-

ter, most companies can reap significant value from a unified, companywide sourcing model. The pooling of demand and the resulting increase in negotiating power can result in material savings. Such a model can also be used to simplify interfaces with suppliers, either by moving one supplier into a prime-contractor role or by forcing different vendors to work together.

A joint KPI-based incentive and penalty system can be an effective way to encourage cooperation among vendors. A leading bank in the Netherlands that relies heavily on IT outsourcing (with the majority of its spending distributed across six vendors) frequently faced cross-supplier issues in its outsourcing agreements. Problems would arise that straddled supplier functions, but the bank's vendors had their own respective performance metrics and incentives, and saw little reason to work together toward a solution. To resolve this issue and create the necessary alignment among suppliers, the bank defined a limited set of shared KPIs, to which a significant share of vendors' variable compensation was linked.<sup>3</sup> After some initial resistance, the suppliers came to enthusiastically support the model and the win-win partnership it forged.

## Ensuring a Successful Start and Sustainable Progress

There are four must-haves in the design and implementation of a successful and sustainable IT-simplification effort.

The first is a blueprint describing the target end state and a roadmap for getting there. The blueprint should include the drivers the company plans to deploy (depending on its starting position and priorities, the company might benefit by starting with a subset of drivers—for example, intelligent demand management, scenario-based application rationalization, and a simplified IT organization and an enabled IT workforce). The roadmap defines the actual steps necessary to achieve the end state, taking into account technological interdependencies (for example, between the retirement of some applications and the simplification of technology patterns) and the business's priorities.

The second requirement is a program management office that helps drive progress and track results. We recommend the establishment of a simplification “cockpit” that uses a few KPIs to measure the current level of IT complexity and makes progress visible to decisionmakers on both the IT and business sides. Results should also be communicated regularly to the company's executive board to enable assessment of progress against plans.

The third must-have is the embedding of simplification principles into the company's governance structure to prevent the buildup of new complexity. This demands the strong involvement of IT and operations and the enforcement of rigorous enterprise-architecture-management principles.

The final requirement for successful simplification is buy-in from senior business management (the CEO and CFO) and senior IT management (the COO and CIO).

**I**T SIMPLIFICATION is a challenging but rewarding exercise. Done properly, it can help companies increase their agility, flexibility, and efficiency—all essential prerequisites for winning in these uncertain times.

### NOTES

1. See “Between Anarchy and Dictatorship: A Framework for Information Technology Decisions,” BCG article, September 2011, for details on how a major European bank attempted to strike an optimal balance between centralized and decentralized decisionmaking.
2. See “Managing IT for Business Value: The New Gold Standard,” BCG article, September 2010.
3. See “Shared KPIs in Multivendor IT Outsourcing: Turning ‘I’ to ‘We’,” BCG article, February 2011.

*Michael Grebe is a partner and managing director in the Munich office of The Boston Consulting Group. You may contact him by e-mail at [grebe.michael@bcg.com](mailto:grebe.michael@bcg.com).*

*Enno Danke is a principal in the firm's Munich office. You may contact him by e-mail at [danke.enno@bcg.com](mailto:danke.enno@bcg.com).*

# TELECOM-IT TRANSFORMATION DOWN UNDER

PATRICK ELTRIDGE, CIO OF TELSTRA,  
TALKS TO BCG'S MICHAEL HITZ

**Can you briefly describe the mandate and size of Telstra's IT organization?**

Telstra's IT organization provides technology support and solutions companywide. We are focused on a number of areas, including the build, expansion, and integration of communications networks and systems; the provision and support of IT infrastructure, architecture, and applications; and IT business integration for all Telstra lines of business. We have a physical presence in all major cities across Australia and more than 2,500 employees, contract labor, and professional-services personnel working to service the needs of the organization. We also have another roughly 5,000 people working for our partner organizations.

**You recently launched a fairly substantial transformation of the company's IT. What were your objectives?**

When I started with Telstra, it was clear that, to meet the company's strategic ambitions, the IT function would have to strengthen its capabilities on multiple fronts—broadly themed: people, change, and the fu-

ture. To facilitate a deeper engagement with the business, we moved from a systems- or functionally organized structure into a business-aligned one. We changed the way we deliver—previously, we were too expensive and were taking too long—and sought in particular to strengthen our agile capabilities. We reformed many of our financial and program-governance practices. Setting a course for the future, we started to build deeper technical practices to better support the business and began to bring intellectual property and capability back in-house. Most importantly, from a people perspec-

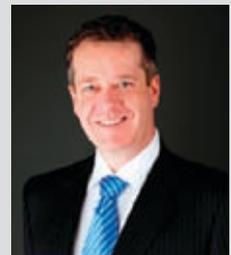
tive, we focused more deeply on our culture, our leadership values, and the empowerment of our teams.

**The reorganization introduced a new operating model and a new way of working with the business units. What challenges did that pose?**

We had to design a model that reflected the interests of our business sponsors to the greatest extent possible. We built natural connection points into the model to encourage interdependence and collaboration among the IT teams and businesses.

## PATRICK ELTRIDGE

Patrick joined Telstra as chief information officer and executive director of IT in 2010. He has responsibility for the end-to-end design and delivery of IT infrastructure and applications as well as for Telstra's data centers and managed information services. His previous experience includes employment at Standard Chartered Bank from 2008 to 2010, with responsibility for strategy, architecture, and design, first for consumer banking and then as group chief architect; four years as the CIO for business and consumer banking at Westpac; and four years as CIO at Seek. He also spent time as a consultant with The Boston Consulting Group and held various positions with HSBC and National Australia Bank.



Finding the right IT leadership for those teams was critical. The leaders needed to be commercially savvy, very strategically minded, able to communicate with both the business and their teams, and able to provide direction through visionary leadership. We also needed to build new architecture practices, focusing on business solutions and capability roadmaps. Finally, we needed to ensure that the leaders of the IT teams had a seat on the business's executive teams.

**Talk a little bit about performance measurement. What metrics do you use to gauge how well IT supports the business? And what sort of progress have you seen?**

We started with the usual traditional measures of operational stability, reliability, and alignment of capacity with demand. From there we moved rapidly to measuring business stakeholder satisfaction with our end-to-end services. Our metrics confirmed that our ability to support the business has improved dramatically year on year. We're now moving toward developing a measure of value delivery, both cycle time and overall value delivered in a period, to raise the bar even higher. In the process, we're building what we call a twenty-first-century project-management office, or PMO, based on lean principles. This effort is very much a work in progress but appears to be already pushing quite a few boundaries. And the feedback from the business has been overwhelmingly positive.

**You've placed considerable emphasis on agile methodologies. Why agile?**

First and foremost, agile has proven to improve the quality of what we deliver. It reduces risk; it also reduces waste in the cycle, meaning we get more bang for the buck from our capital programs. We either deliver more

for less or we spend less, depending on what's required. We're also finding that, through agile, the business sponsors are far more engaged and involved in the delivery process and have a much higher sense of ownership. So when challenges inevitably arise, the resolution is achieved via a joint collaborative effort, rather than blame and finger-pointing.

**How do you see the role of IT infrastructure in telcos changing over the next few years? What do you think is most critical for IT organizations, including your own, to get right?**

Telcos' legacy architectures have encouraged the duplication of application and infrastructure stacks by telco product. Over time, this has translated into a very complex infrastructure environment. The challenge now, as we move to IP-based application delivery over a common control plane, is to aggressively pursue standardization and automation and shift toward a services orientation across our entire infrastructure. This would have been very difficult to pursue previously. What stands to be even more important for Telstra specifically, going forward, is our increasing emphasis on cloud and other services in our go-to-market strategy, and capabilities accompanied by a culture that can adapt quickly to change and in some instances be a change maker.

**Is your use of cloud different from that of other telcos?**

I doubt it's strategically different. But we may differ in how fast we're moving down the path and in how we are consuming those same services internally, which serves as a deliberate proof point to the market. Telstra now has a full range of commercial cloud capabilities that we've targeted at medium businesses and the enterprise and government segments. We're building those capabilities into

our hybrid infrastructure, doing workload analysis, and putting different platforms into different types of infrastructure. A great example of this is our plan to move all of our new SAP capability into our commercial SAP-certified hosting environment. Telstra will be the largest anchor tenant of its own public offering.

**What role does IT play in Telstra's new-product innovation, and is that role changing?**

The IT organization plays an active role. In addition to leveraging cloud and other external sources to enhance our commercial capabilities, we're also partnering with our products and marketing group to iteratively develop new go-to-market products. For example, we have tens of thousands of seats of virtual desktop infrastructure internally—but we have no go-to-market VDI capability yet. We are working with the product group to converge our internal VDI with their VDI product roadmap and end up with a single solution that we can consume internally and also take to market.

**What do you consider the industry's greatest challenges going forward, and how is Telstra positioning itself to address those?**

I think the biggest challenge for telcos around the world is the big structural shift away from fixed-line revenues and voice over copper, in particular. We're also seeing a structural decline in our print and yellow-page revenues. Telstra is responding to these challenges with a growth strategy focused on managed-services businesses, including media, and on the expansion of those businesses into Asia. Within that context, the challenge for Telstra's IT is to become a source of competitive advantage by developing the nimbleness, responsiveness, and collaborative orientation that allow the business to

develop new capabilities and respond very rapidly in the market.

The other, perennial challenge for telco IT, including our own, is the pursuit of simplification, especially in architecture and infrastructure. This pursuit is definitely enabled by the macro shift to IP-based products and services over the common infrastructure. But for telcos to succeed, it needs to be pursued as a mandatory, strategic component rather than a discretionary or op-ex-driven nicety.

**What impact has Australia's National Broadband Network initiative had on Telstra?**

The NBN rollout of fiber forces every home and business residence in Australia to choose a telecommunications service provider. This has placed even greater urgency on our shift toward greater customer advocacy. It

hasn't changed our strategy, but it has accelerated it.

**Circling back to the transformation, what are your next steps?**

At times, it feels like the transformation is just starting. While we have a lot of wins on the board and a lot of satisfied stakeholders, there's so much more to do, especially in terms of maturing our agile capabilities and developing a deeper partnership with our business stakeholders. We also want to involve increasing numbers of our people in the journey to develop their capabilities as well as their boldness and appetite for risk. So this will keep us busy for a few years to come. Beyond that, we will continue to work to develop a truly enterprisewide view as we expand our offshore presence and will strive to be a key driver of innovation to support the company's growth businesses.

**A final question: what do you enjoy most about your role as CIO of Telstra?**

First and foremost, I enjoy driving and supporting a successful business. And Telstra is enjoying terrific growth and success in the marketplace. Another big motivator for me is helping people achieve their maximum potential and even surprise themselves with what they can do, given the opportunity.

**Thanks, Patrick.**

*Michael Hitz is a partner and managing director in the Sydney office of The Boston Consulting Group. You may contact him by e-mail at [hitz.michael@bcg.com](mailto:hitz.michael@bcg.com).*

# TELECOM IT

## HOW IT IS DRIVING BUSINESS VALUE AT EUROPEAN TELCOS

by Frank Felden, Thomas Krüger, and Eirini Markoula

**F**ACING ONGOING DOWNWARD PRESSURE on revenues and pricing power, European telecommunications companies have put a premium on cost reduction. IT units have been called on to do their share, and many have responded with aggressive cost-cutting campaigns that have already delivered sizable savings. But for IT, the low-hanging fruit has largely, by now, been plucked, while the pressure to support the business remains and is indeed intensifying. How are IT departments responding?

Many are increasingly emphasizing *business value creation*. This was a key finding of the latest annual survey of industry participants conducted by BCG and ETIS, a membership-based organization that seeks to help telcos improve their business performance through shared discussion of IT practices.<sup>1</sup> Cost reduction is and will remain a priority for the industry's IT, the survey confirmed. But IT departments are focused not just on reducing spending but on ensuring that what they do spend is spent wisely and has maximal impact on the business.

And IT units are hitting that mark, on balance. A comparison of telco IT spending on key processes—product and sales management, fulfillment, billing and collection, and assurance and customer service—with the quality of those processes revealed a general correlation between spending and value cre-

ation, though the link was stronger in some areas (such as product management and sales) than others. The survey also found that no single telco-IT unit excelled in value creation across all business areas. Some operators led for one or even two of the processes, but all lagged somewhere.

---

Pressure on IT to support the business is intensifying.

---

The survey also shone light on two closely related issues: IT-spending efficiency and the alignment of IT spending with the company's business strategy. IT spending averaged 4.6 percent of revenue but varied significantly among respondents, ranging from 2.8 to 6.2 percent. In the past, it has been difficult to infer anything with confidence from these numbers with regard to spending efficiency. Outliers have justified their results by saying that the numbers are not comparable: a smaller operator, for example, cannot benefit from economies of scale, while an integrated telco has more complicated IT than a mobile-only player.

The latest survey, however, attempted to normalize IT spending—and give telcos a realistic sense of how their cost levels truly compare

with those of other operators—by accounting for three of the most important factors that influence IT cost: a telco’s size, business mix, and, critically, IT business-value creation. The analysis found that, when adjusted for these factors, IT spending levels were much more closely aligned, averaging 4.8 percent of revenue. Most participants fell around that figure, but interestingly, several telcos whose unadjusted spending marked them as underperformers were actually outperformers once their cost levels were normalized.

Survey findings also underscored the importance of IT-business alignment. Investing to generate business value, no matter how efficiently the money is spent, can be largely wasted if the investments are scattered or targeted at the wrong things. Telco IT units, thus, need to ensure that their spending strategy is closely aligned with the company’s overall business strategy. “No frills” IT (low value creation, low cost), for example, would be the ideal position for a telco with an overriding goal of cost reduction, while “premium IT” (high value creation, high cost) would suit a

telco focused on growth. Once its spending strategy is aligned with that of the business, the IT unit can concentrate on ensuring that it is getting what it paid for—or more.

NOTE

1. For a copy of *Telco’s New IT Weapon: Business Value Creation*, an executive report cowritten by BCG and ETIS that highlights many of the survey’s major findings, please contact one of this article’s authors.

*Frank Felden is a partner and managing director in the Cologne office of The Boston Consulting Group. You may contact him by e-mail at [franken@bcg.com](mailto:franken@bcg.com).*

*Thomas Krüger is a principal in the firm’s Düsseldorf office. You may contact him by e-mail at [krueger.thomas@bcg.com](mailto:krueger.thomas@bcg.com).*

*Eirini Markoula is the benchmarking project coordinator in ETIS’s central office in Brussels. You may contact her by e-mail at [em@etis.org](mailto:em@etis.org).*

# SECRETS OF ONLINE MARKETPLACES

by Jean-Marc Bellaiche, Thierry Chassaing, and Sunil Kapadia

*Four waves of e-commerce disruption are sweeping across the consumer goods and retail industry. The third and the biggest so far, the rise of online marketplaces, is nearing its apex. It is transforming retail economics, creating enormous value for some players and huge challenges for others. This article looks at the drivers of success behind, and the impact of, one of the most far-reaching online phenomena.*

**R**ETAIL REGULARLY UNDERGOES TRANSFORMATION. In the eighteenth and nineteenth centuries, it was the rise of department stores. In the twentieth, first catalogs and mail order, then big-box stores and hypermarkets changed how consumers—particularly Western consumers—shop. The first radical wave in the twenty-first century—online marketplaces—is upending the sector again, and doing so with unprecedented speed and reach. Companies such as Amazon, Rakuten, and Taobao, among others, have built commanding market shares in just a few years and are still growing fast. Amazon is already a roughly \$50 billion business and growing at 40 to 50 percent per year. The gross value of merchandise sold on Rakuten has doubled since 2007 to more than ¥1 trillion. Marketplaces will drive

e-commerce growth to well over \$1 trillion in annual sales in a few years' time.

As with previous upheavals, this phenomenal success is rooted in consumer choice, convenience, and transformative economics. On the basis of their successes in books and electronics, the pioneers of online merchandising (Amazon was founded in 1994; Rakuten, in 1997) realized that by enabling thousands of third-party vendors to sell goods through common marketing and payment platforms, they could create significant value for all the parties involved—consumers, sellers, and the marketplaces themselves.

## Benefits to Consumers: Choice and Transparency

Online marketplaces provide substantial benefits to consumers. First among them is the depth and breadth of goods available. Our analysis of a dozen product categories spanning pet supplies, electronics, personal care, diapers, and groceries shows marketplaces offering selections up to 80 times as large as those offered by traditional pure-play and multichannel retailers. Marketplaces also give consumers access to low-

volume and niche products not always available elsewhere.

In regions where the physical retail infrastructure is not well developed, marketplaces often provide the best access to merchandise. As one Shanghai consumer told the *Wall Street Journal*, “I would say 90 percent of the things in my house” were purchased on Taobao, including “the washing machines, the air conditioning, the television, the refrigerator.”<sup>1</sup>

Some might think that consumers are overwhelmed by this breadth of choice. The reality is that consumers who want to “beat the system” and younger generations (especially the 18- to 34-year-old Millennials) value marketplaces precisely for the wide selection they offer and because marketplaces have become adept at serving up the most relevant products to consumers through their knowledge of individuals' preferences.

Consumers also benefit from transparent and dynamic pricing. From hard drives to shampoos, marketplaces consistently offer better prices than multichannel retailers—discounts of up to 80 percent in some cases. The reason lies partly in advan-

taged economics (lower real-estate and operating costs, for example) and partly in competition: dozens of vendors often vie to sell the same item, algorithmically adjusting prices up and down in real time. One high-end brand-name can opener, for instance, showed price fluctuations of up to 60 percent (\$10.75 to \$17.99) over three months. (See Exhibit 1.) Couple this with the third-party tools that allow consumers to set price alerts, and you have a situation where shoppers can command the lowest possible price with just a few clicks.

A third advantage for consumers is innovative loyalty offers that seek to cement the customer relationship and generate continuing streams of business. Amazon Prime offers such benefits as free shipping in return for an annual subscription fee (\$79 in the U.S.). The strategy is time-tested: use subsidies to capture a greater share of consumers' wallets. Many analysts have questioned the long-term sustainability of such programs, but we believe the economics benefit the marketplace. Our estimates—based on an analysis of customers' order histories before and after join-

ing one loyalty program—show a fourfold increase in the number of purchases and a twofold jump in overall gross profits in the first year of membership, despite a noticeable increase in the number of money-losing orders.

### Benefits to Sellers: Access to More Markets and Consumers

Marketplaces work because they offer benefits to sellers as well. Companies gain access to new markets and new customers with minimal incremental investment in marketing. They have the opportunity to sell direct, many for the first time, eliminating one or two middlemen. The cost is only a variable commission, usually between 8 and 15 percent of sales through Amazon, and much lower on sites such as eBay and Taobao. Sellers can maintain relatively simple software development and IT operations geared to delivering product descriptions, images, and videos, since the marketplace provides the rest of the commerce platform. In many cases, sellers also receive fulfillment services that reduce the need for invest-

ment in a direct-to-consumer distribution network. A company based in Asia, for example, can gain access to millions of U.S. consumers through Amazon or eBay without having to hire a single employee in the United States.

### Benefits to the Marketplace: Scale Driving More Scale—and Sophistication

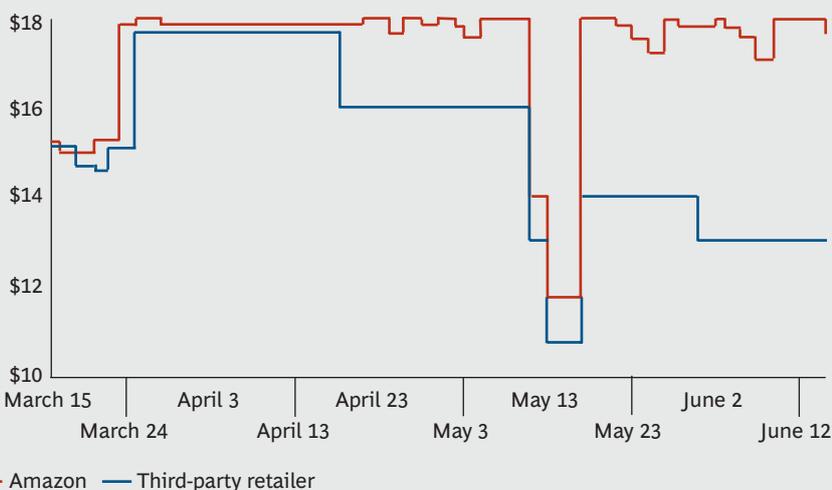
Marketplaces are a rare example of having one's cake and eating it, too. They profit both from the substantial commissions they earn on third-party sales and from selling their own inventory, often in direct competition with third-party vendors. By aggregating hundreds of thousands of sellers, they drive more traffic and provide all that choice to consumers. They spread the costs of generating demand over a broad range of goods and drive down fixed costs. They also keep customers on their sites longer. Between September 2007 and July 2012, Amazon more than doubled its number of unique visitors per month—from 42 million to 95 million. During the same period, annual sales tripled from \$15 billion to \$48 billion, distribution center efficiency increased by 36 percent (measured by sales per square foot), and spending on IT and customer service dropped from 5 percent to 3.7 percent of revenue. As visits and revenues increase, they provide an incentive for even more sellers to join, creating a virtuous cycle.

Increased volume has other benefits. Marketplaces gain improved negotiating leverage with downstream providers and access to an ever-greater amount of consumer information. They also can get a first look at high-performing sellers that are candidates for acquisition.

The range of choices offered by marketplaces, especially when combined with their superior understanding of

#### EXHIBIT 1 | Real-Time Price Competition

Brand-name can opener: Amazon versus third-party retailer



Source: camelcamelcamel.com price tracking, June 15, 2012.  
 Note: Price changes from March 15, 2012, to June 15, 2012.

consumers' purchasing patterns, provides significant advantages over other retailers. One is the ability to customize offerings to microsegments of consumers. Further, with pricing algorithms that take into account tradeoffs between gross margin and commissions or levels of inventory, marketplaces can decide in real time whether to match or undercut the best prices proposed by other retailers on the marketplace.

### What's on the Horizon

Despite their rapid rise, marketplaces have yet to take off in all categories. They have proved most effective for slower-moving lightweight products that cost \$20 or more, where consumers value broad assortments and low prices. These include such categories as media, consumer electronics, and general merchandise (home office equipment, toys, and small appliances), in which the cost tradeoffs between distribution through stores (where retailers pay for rent and labor) and home delivery (where retailers pay for the cost of picking and packing and transportation) favor marketplaces. (See Exhibit 2.)

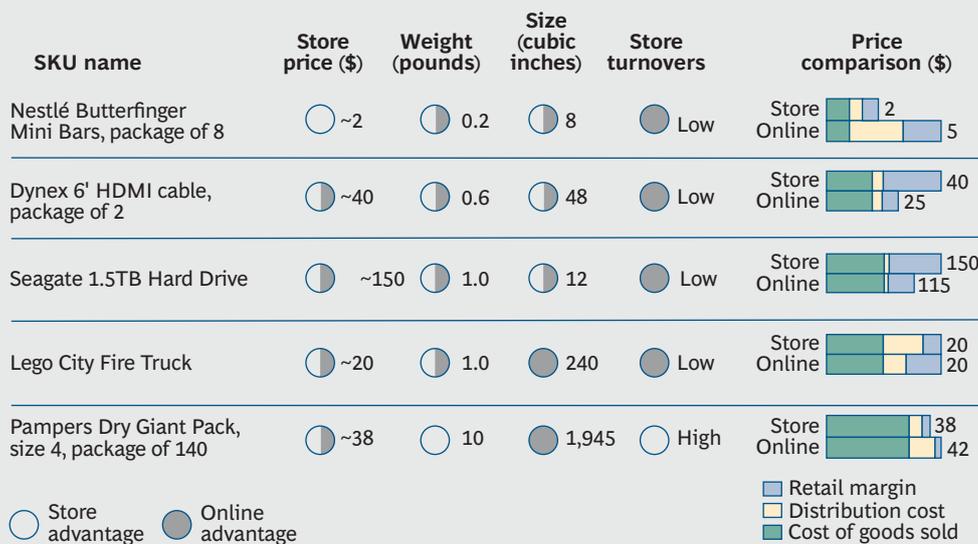
Other categories have been slower to move onto marketplaces. They include products that have:

- Tightly controlled distribution or high brand engagement, such as designer apparel and luxury goods
- High immediacy of need, such as over-the-counter medicines
- Propensity for strong community interaction and specialized advice—baby and sporting goods, for example
- Low margins and are sold through heavily discounted closeout formats, such as discount apparel and dollar store items
- The need for temperature control—for example, produce, dairy, and frozen items
- Low price and high turnover, such as fast-moving dry groceries, where the cost of home delivery is prohibitively expensive and stores remain the most efficient distribution channel

Further change is coming, however, as several factors converge to bring some of these traditionally “safe” categories under attack. First, subscription programs such as Amazon's Subscribe & Save, introduced in 2008, are expanding. Customers get free delivery and discounts of 5 to 10 percent when they sign up for recurring delivery on a monthly or quarterly basis. All parties benefit from such programs. Consumers avoid running out of things they use all the time. Marketplaces increase share of wallet and improve the predictability of logistics flows. Suppliers have an opportunity to increase frequency of usage and hence consumption, while locking consumers to their brands. Such programs could have a significant impact on categories like beauty, personal care, household cleaning, dry grocery, and waters and sodas.

The introduction of Add-on Items (launched by Amazon in May of 2012) allows users to aggregate low-price-point, nonperishable grocery products in a basket that's economically viable to ship (with an aggregate value of more than \$25). Historically, such items were available online only

**EXHIBIT 2 | Competitive Economics: Online Marketplaces Versus Stores**



Source: BCG analysis.  
 Note: Assumes one item.

in bulk packs, which were mostly unattractive to consumers. Warehouse automation has brought down picking costs, and packing and shipping can now be amortized over the entire basket. “Click and collect” schemes, through which consumers order online and pick up at stores, dedicated facilities, or third-party locations, are also catching on. The advent of “fresh and frozen lockers” for perishable goods could continue to fuel the online migration of products.

## Fight or Join?

In broad strategic terms, the choices facing retailers and suppliers are straightforward: join or collaborate with existing marketplaces, compete by creating one’s own marketplace or substantially expanded online presence, or try to maintain the status quo—an increasingly untenable option, in our view.

**Challenges for Retailers.** Joining a marketplace is more complicated than simply signing up. It requires building new capabilities in merchandising, marketing, CRM, promotions, supply chain management, and packaging. In merchandising, for example, the ability to determine the optimal product assortment for each channel (including managing overlapping SKUs in the store and online, as well as designating exclusive SKUs for the marketplace and products to withhold from the marketplace) becomes an important skill. So does setting prices for each channel, especially given the ability to adjust prices continually in the marketplace setting.

There are plenty of successful models to look to. Germany’s largest drug-store chain, dm-drogerie markt, for example, is pursuing a strategy of selling private-label products on Amazon, thereby leveraging Amazon’s core competencies in e-commerce and distribution, while continuing to operate some 1,250 brick-and-mortar stores.

For retailers, fighting—that is, creating one’s own marketplace—means expanding assortments, broadening offerings to consumers, building new capabilities, and deriving benefits of scale. It can be done only with a thorough analysis of the economics and a clear definition of the model. The former requires assessing potential sources of revenue—for example, advertising versus commission, or both; required marketing and infrastructure costs; and the costs of loyalty programs, among other factors. The latter involves determining the optimal user experience across platforms, whether other sellers complement or compete with one’s own inventory, and the best means of offering fulfillment services.

**Issues for Suppliers.** For consumer goods suppliers, joining a marketplace (or marketplaces) raises its own challenges with respect to channel management, particularly around pricing. In categories such as power tools, for example, marketplaces offer a fast-growing and profitable channel, but suppliers have to manage conflicts with large established brick-and-mortar retailers. Procter & Gamble has built a strong partnership with Amazon, with innovative promotions and new product formats (for example, in diapers) and packaging, allowing it to increase its market share significantly in the online world. Similarly, some apparel brands are opening boutiques on Amazon to improve control of how their brands are marketed and presented online.

For suppliers, fighting often means preventing the retailers carrying their brands from offering them on marketplaces. Adidas recently announced that it would ban its dealers from listing its products on eBay and Amazon starting in January 2013. Issues of brand control versus potential revenue loss require careful weighing. If social networks are successful in building their own marketplaces,

these issues will become even more complicated.

We believe that ignoring marketplaces is not a viable option. As the channel continues to gain prominence, suppliers will lose out either to direct competitors that decide to partner or to smaller companies that use marketplaces as a vehicle for growth. Or their assortment will end up on marketplaces anyway through third-party sellers—the worst of both worlds, since the suppliers will have forfeited their control of brand management.

**M**ARKETPLACES WILL NOT BE the last disruptive force to hit the consumer goods and retail industry. But for the foreseeable future, they will have an outside impact in shaping profitable strategies for both retailers and suppliers. Those companies that figure out the best way to use this force to their advantage are most likely to prevail.

### NOTE

1. “Taobao, Yahoo Japan Look for eBay-Style Heft,” *The Wall Street Journal*, May 10, 2010, <http://online.wsj.com/article/SB10001424052748703674704575235333773371988.html>.

*Jean-Marc Bellaiche is a senior partner and managing director in the New York office of The Boston Consulting Group. You may contact him by e-mail at [bellaiche.jean-marc@bcg.com](mailto:bellaiche.jean-marc@bcg.com).*

*Thierry Chassaing is a senior partner and managing director in the firm’s Washington office. You may contact him by e-mail at [chassaing.thierry@bcg.com](mailto:chassaing.thierry@bcg.com).*

*Sunil Kapadia is a principal in BCG’s New York office. You may contact him by e-mail at [kapadia.sunil@bcg.com](mailto:kapadia.sunil@bcg.com).*

# IT OUTSOURCING

## EXPECTATIONS VERSUS FACTS

by Heiner Himmelreich, Peter Burggraaff, and Daniël Hofman

IT OUTSOURCING CAN BE a potent lever in professionalizing IT services and driving down IT costs, and companies continue to exploit it to various degrees. Yet many outsourcing efforts ultimately disappoint, with hoped-for gains in speed, flexibility, and service quality failing to materialize. (See “Signs of IT Outsourcing Gone Awry,” below.) And solutions can be elusive. Many executives become so frustrated, in fact, that they eventually throw up their hands and opt to bring some, if not all, of the outsourced work back in-house.

Are there ways to ensure success in this arena? This article, the first in a series on value delivery in IT outsourcing, explores the potential benefits that draw companies to outsourcing and the reasons why many businesses fail to capture them, and it identifies the symptoms of a floundering outsourcing program and how to put it back on track.

### The Gap Between Aspiration and Reality

Outsourcing can create value for companies by providing three primary benefits: lower costs, higher service quality, and greater agility and responsiveness to the business’s needs. Outsourcing companies can deliver lower costs through greater economies of scale, access to low-cost labor, and process efficiency derived from their experience and fo-

cus on process maturity and continuous improvement. They can deliver higher service quality because of the maturity of their processes and their access to and familiarity with the latest technologies. They can deliver improved agility and responsiveness through their advanced project-management skills, their ability to quickly ramp up or scale down resource capacity, and their ability to access and leverage collaborative development methods, such as agile software development. And outsourcers can deliver these capabilities on demand, sparing companies the considerable effort and time it would take to build them internally.

Each of these benefits can translate into meaningful competitive advantage. But realizing their potential value can be problematic. Take costs, for example. The potential for cost savings remains the single biggest lure for companies that outsource elements of their IT. Yet surveys reveal a high degree of dissatisfaction with the cost savings realized from IT outsourcing.

BCG’s experience confirms this finding. Indeed, we have found a particularly striking relationship between IT costs as a percentage of administrative expenses and a company’s reliance on outsourcing (measured by outsourcing’s share of total IT spending). Our research indicates that, for many companies, rising IT cost savings correlate with increasing

## SIGNS OF IT OUTSOURCING GONE AWRY

Fundamental problems with IT outsourcing rarely appear without warning—there are typically cues along the way. These might include the following:

### Costs

- The ratio of IT costs to company revenues does not improve.
- The underperformance of vendors necessitates frequent financial settlements to compensate the company.

### Service Quality

- There is low satisfaction within the company with the performance of key areas or functions—for example, the service desk.
- Vendors meet contracted service-level agreements but do not solve the underlying problems; as a result, problems recur.

### Agility and Responsiveness to the Business's Needs

- Expected gains in agility and responsiveness fail to materialize because the vendor or vendors cannot free up the right resources for the project or challenge at hand.
- The company must frequently take corrective action to fix problems in areas tasked to vendors, keeping internal resources occupied with low-value activities and thus delaying completion of the company's high-priority projects.
- The time it takes to resolve major incidents increases, leading to high system downtime.

If your company is experiencing any of these, it is time to act.

deployment of outsourcing only to a degree. For example, a recent BCG benchmarking study revealed that IT costs as a percentage of administrative expenses at financial services companies do indeed fall as outsourcing increases. But after a certain point, IT costs as a percentage of administrative expenses actually begin to increase. (See the exhibit.) Moreover, we have observed a similar relationship between outsourcing and IT costs for companies in other industries, and the pattern holds over time. This suggests that a company's ultimate return on outsourcing will be capped unless it can identify and remedy the underlying problems.

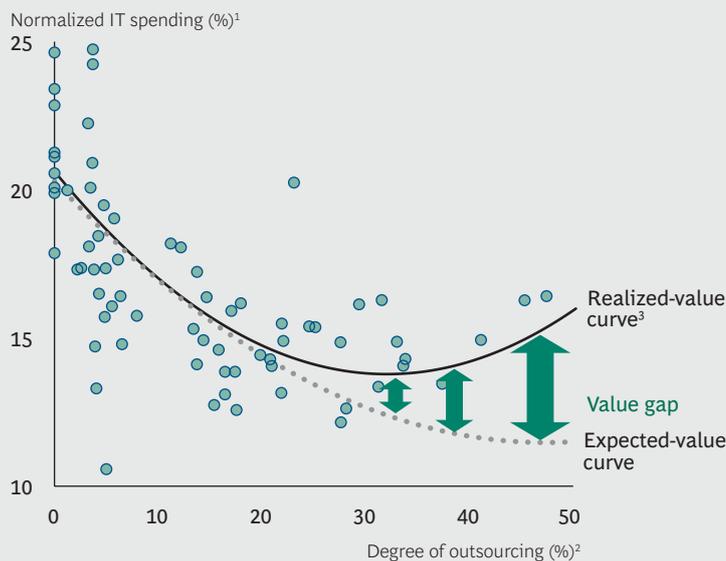
These problems can take any number of forms. For example, one company that was seeking to reduce its outsourcing costs through contract renegotiation saw its efforts undone when the winning vendor began to delay the delivery of key projects, limit resource availability, and reduce its investments in service in an effort to recover its profit margin. Another company, hoping to streamline and simplify its application landscape in

order to achieve greater agility, abandoned its existing outsourcing program (which involved more than 300 vendors) and established a co-sourcing business unit led by a single vendor and the company's IT department. The company failed to manage the transition well, however, resulting in a loss of critical know-how and delays in project completion.

A third company, seeking to improve its service quality, negotiated a large outsourcing deal with a leading infrastructure vendor. But the vendor failed to perform at the promised level because of internal misalignment and bickering, with the account representative blaming both the terms of the deal ("This is a money loser") and the vendor's management structure ("Each of the many internal groups working on your behalf has its own incentives, and I have no control over them").

As these examples illustrate, vendor underperformance is a common reason why outsourcing efforts skid off the rails. A vendor may have oversold its capabilities and be unable to deliver the targeted service levels

## For Financial Services Companies, Greater Reliance on Outsourcing Reduces IT Spending—but Only up to a Point



Source: BCG European IT in Banking Benchmarking database.

<sup>1</sup>IT costs of participating banks as a percentage of administrative expenses.

<sup>2</sup>Outsourcing costs of participating banks as a percentage of IT costs.

<sup>3</sup> $R^2 = 0.427$ .

at the specified price. But the fault lies nearly as often with the company itself. IT management may lack the necessary capabilities to negotiate the outsourcing contract or manage the company's outsourcers efficiently. Or the company may be operating at the wrong scale to realize the desired savings. Or vendor KPIs and incentives may be unclear or misaligned with the company's objectives.

### Ensuring Outsourcing Success

There are essentially two avenues for addressing these types of problems. The first is a review of vendor contracts, potentially followed by their redefinition or renegotiation. A new or improved contract will help protect the company's interests on multiple levels. It will provide appropriate incentives to ensure that the vendor's (or vendors') interests are aligned with the company's needs and expectations. It will minimize or eliminate the possibility of unexpected costs, such as settlement fees or training costs. And it will ensure that the collaboration between company and vendor is set up for success. Contract and vendor management must be ongoing.

The second, more important, and often forgotten lever for ensuring successful IT outsourcing is optimization of the company's IT-outsourcing operating model. This entails action on several fronts:

- IT service-delivery processes must be examined from top to bottom to identify key opportunities for improvement.
- The company's internal IT organization must possess the ability to effectively orchestrate relationships with vendors and ensure that handover points are managed smoothly. This entails a definition of processes and of roles and responsibilities.
- The IT organization must be able to effectively manage the business's demands and identify the required IT systems and services.
- The appropriate metrics and incentives for all parties must be in place and there must be sufficient transparency to allow for proper monitoring, measurement, and steering.

**A**CHIEVING maximum value from IT outsourcing is not easy. It requires a strong internal IT organization, committed and capable vendors, and an optimized relationship between the two sides, supported by a solid contract. Future articles in this series will look at these levers in detail, including an examination of best practices in IT-outsourcing contract structure, content, and execution and how to drive end-to-end improvement in the company's IT-outsourcing operating model.

*Heiner Himmelreich is a partner and managing director in the Amsterdam office of The Boston Consulting Group. You may contact him by e-mail at [himmelreich.heiner@bcg.com](mailto:himmelreich.heiner@bcg.com).*

*Peter Burggraaff is a principal in the firm's London office. You may contact him by e-mail at [burggraaff.peter@bcg.com](mailto:burggraaff.peter@bcg.com).*

*Daniël Hofman is a project leader in BCG's Amsterdam office. You may contact him by e-mail at [hofman.daniel@bcg.com](mailto:hofman.daniel@bcg.com).*

# UNLEASHING THE VALUE OF CONSUMER DATA

by David Dean, Carl Kalapesi, and John Rose

**E**VERY SECOND OF THE day, a wealth of data stream from a global maze of social networks, smartphones, point-of-sale devices, medical records, financial transactions, automobiles, energy meters, and other digital sources. Such big data, fueled largely by personal data about all of us, represent an asset class every bit as valuable as gold or oil.

In fact, freely flowing data—infinately generated, distributed, mined, combined, tracked, and connected—play a particularly critical role in many of the products and services that make up the Internet economy. According to The Boston Consulting Group’s research, by 2016 the Internet economy will reach \$4.2 trillion in value in the developed markets of the G-20, or 5.3 percent of their GDP. In these countries, the Internet economy is growing at 8 percent annually, far outpacing just about every traditional sector in many other-wise-struggling economies—and growth rates are more than twice as fast in developing markets.

Consumers are the real beneficiaries of the Internet economy. The value they place on the many Internet services that have been built atop the

sharing of personal data—such as search engines, e-mail, news sites, and social-network services—reflects that benefit. Consumers value the Internet at many times more than its cost, BCG has found. (See Exhibit 1.)

But the size of the future value and growth depends on the trust that consumers place in the use of data about them. Take the case of online retail, one small part of the personal-data ecosystem. BCG forecasts that the sector could grow by anywhere from \$1.5 trillion to \$2.5 trillion by 2016. That difference of \$1 trillion serves as a signal for the potentially tens of trillions of dollars of economic impact at stake when other sectors, such as health care and financial services, are considered.

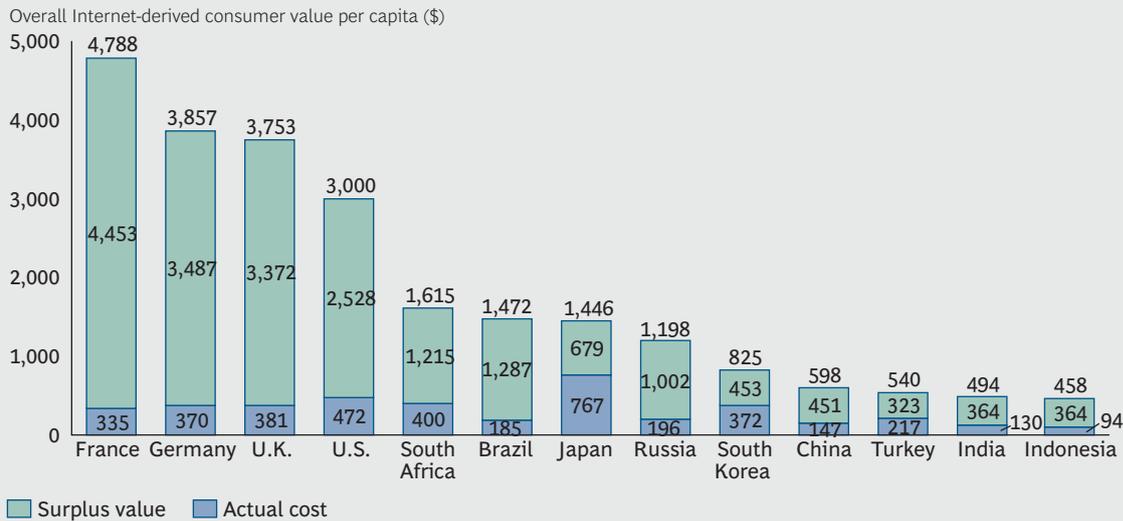
Despite this tremendous opportunity, risks lie just beneath the surface. Given the consistent headlines reporting security breaches, data misuse, and disruptions, consumers are growing increasingly concerned about how their data are gathered and used. However, these concerns depend on the context—who is collecting the data, how the data are being used, and (to a lesser extent) the type of data. For instance, the perception of a

threat to privacy varies across industries by a factor of five to ten times as one moves from the automotive, telecommunications, and retail industries at the low end to online search and social networking at the high end.

Adding to the uncertainties are costly regulatory developments—in jurisdictions as diverse as the European Union, the U.S., and developing markets—with the potential to affect citizens and organizations far from their places of origin, as we will explore. Given the strong interest and awareness of the subject among consumers and regulators, a considerable portion of the potential opportunity could be at risk.

In an earlier report (*Rethinking Personal Data: Strengthening Trust*) written in partnership with the World Economic Forum, we called for a range of stakeholders to build a framework for a common understanding in dealing with the many risks and opportunities involved in this valuable new asset class. Here, in this article, we offer four clear-eyed, practical steps that business leaders across a wide range of industries can take to bring our earlier framework to fruition. Combined, these strate-

## EXHIBIT 1 | The Value Consumers Place on the Internet Is Many Times Greater Than Its Cost



Source: BCG analysis.

gies can ensure that the trusted flow of personal data, which benefits consumers and businesses alike, gets strengthened rather than stifled.

### Identify the Big Opportunities

Companies that effectively turn consumer information into insights mine these big-data sets to create three categories of opportunity:

- Finding More Efficient Ways to Operate.** Organizations in every industry are using vast amounts of digital data to streamline their operations, overhaul supply chains, improve customer service, develop products, and boost overall productivity. For example, we see \$700 billion in potential health-care cost savings in the U.S., or about 30 percent of the total U.S. health-care spending today, that would result from the improved flow of personal data, reducing duplicate lab testing and imaging, fraud, and inefficiencies as well as improving care coordination and treatment.
- Increasing Returns from Existing Offerings.** Businesses can leverage

data to learn more about consumer interests and behavior in areas as wide ranging as pricing, sales conversion, product development, foot traffic patterns, and innovation. Here, businesses can learn something from politicians: in the 2012 U.S. presidential election, the Obama campaign used sophisticated mining and analysis of everything from demographic and consumer data to TV-viewing patterns in order to successfully turn out the vote, optimize advertising, and raise record amounts of money.

- Sparking Innovative Business Models.** Companies can look for areas where data can help them expand into new products and markets entirely different from where they operate now, such as through the greater use of personalization. For example, tailored insurance products are being developed on the basis not just of age, gender, and neighborhood but of devices that track driving behavior. Location-based and real-time offers could also make it simple for a customer traveling abroad to sign up for extended health or travel insurance using a mobile phone.

To realize these kinds of opportunity, organizations must understand the consumer information they already have, then identify and access any additional data they need and decide who is responsible for them. Many new data opportunities come from the serendipitous commingling of traditional data with newer, less structured forms of big data. For example, companies can combine data about how customers discuss existing products on social-media sites with traditional product-testing data.

### Rethink How You Manage Customer Data

Customer data can be a strategic asset for a company, but they can also be a major liability if misused. To be good stewards of personal data, companies must clearly understand how they manage those data.

Companies need to collect data in a way that both adheres to evolving regulations and builds customers' trust, keeping in mind the wide range of sources of data: customers who volunteer their data directly, companies that observe data as a result of an interaction between an individual and an organization, or an organiza-

tion that infers data from an analysis of customer records and behavior. As companies amass data, they also have an obligation to secure them, to prevent data from being compromised or misused. The potential impacts of missteps in this area can be huge, in terms not just of the sometimes billions of dollars in damage done through the breaches themselves but also the potential legal and regulatory costs.

In addition, companies must have clear policies, protocols, and processes for how they will obtain proper permissions in a decentralized and dynamic environment in which individuals play an active role. Organizations must also ensure that they are actually following their own policies, an element that is frequently lacking.

These are all vital baseline internal requirements. To strengthen trust further, companies need to think about how they engage in a two-way external dialogue with customers and create a true understanding of how they manage increasing amounts of personal data. Current approaches to communicating with customers center on outdated notions of “notice and consent.” But these traditional approaches make liars of us all: every time we click on the bottom of a 100-page privacy policy to say “I have read and understood,” we are forced to lie in order to get the service we want.

One way to rethink how businesses manage personal data is to offer customers simple and meaningful opportunities to grant permission for the use of their data. A joint survey conducted by BCG and Liberty Global of more than 3,000 consumers revealed that few individuals exercise control of their personal data, however. Just 10 percent of respondents had ever undertaken at least six of eight common privacy-protecting activities, such as changing privacy settings or

opting into or out of data use. Even though that remains common behavior today, we found that consumers who were able to effectively manage their privacy were up to 52 percent more willing to share information in the future than those who were not managing their privacy.

Consider how BT implemented the “cookie law” in the U.K., which requires companies to obtain the consent of their website users before using cookies to track behavior online and personalize services. To comply with the law, BT implemented easy-to-understand practices for visitors to

---

A survey of more than 3,000 consumers revealed that few individuals exercise control of their personal data.

---

its website. A simple pop-up screen allows users to discern the *strictly necessary* cookies required for the site to operate properly (from which customers do not have the right to opt out) and the *functional* and *targeting* cookies that enable social sharing and behavioral tracking but that also allow the best experience. The company clearly explained what customers get for the information they give.

### Engage in the Policy and Regulatory Debate

National and regional governments are actively looking to legislate and regulate the personal-data ecosystem. Current regulatory approaches could fundamentally change the ways businesses use data to create value for customers and shareholders, in particular their ability to use big-data sets.

In the EU, the proposed General Data Protection Regulation would have meaningful impacts on businesses

around the world. (For a summary of some of the key concerns raised, see Exhibit 2.) In the U.S., efforts with significant bottom-line results include the Consumer Privacy Bill of Rights, recent multiyear Federal Trade Commission enforcement actions against companies such as Google and Facebook, and legislative efforts related to cybersecurity. In India, a rolled-back requirement for more explicit consumer consent could have resulted in a huge blow to the nation’s outsourcing industry; in other countries, the regulatory process may not necessarily seek to align with Western approaches.

Many regulators are responding to valid consumer concerns about privacy and protection. However, we see a need to engage in a multisided debate about how to strike the appropriate balance between allowing data to flow to create value for everyone and restricting that flow to protect individuals.

Ahead of the approval of the EU General Data Protection Regulation, for example, many global companies are actively working to influence aspects that could undermine many of the popular and often free offerings that depend on personal data. More specifically, businesses are beginning to establish a set of clear and contextually specific usage rules, such as voluntary industry codes of conduct, that reflect the nature of data and the specific uses of data. The complexity of developing an actionable and lasting framework is increasing awareness of the need to collaborate across industries and jurisdictions and to help educate policymakers

## EXHIBIT 2 | The Proposed EU General Data Protection Regulation Could Have a Big Impact on Businesses

### Main Changes in the Proposed Regulation

- **Definition of personal data:** Expanded to include identification numbers, location, and online identifiers
- **Consent:** Required to be explicit in all cases
- **New rights:** Allows users to be forgotten and to enjoy data portability
- **Jurisdiction:** Applies to non-EU businesses that are monitoring or selling to European individuals
- **Impact assessments:** Required for “risky processing”
- **Staff:** Mandatory data-protection officers for public or large companies
- **Security breaches:** Disclosure required within 24 hours where feasible
- **Fines:** €1 million, or up to 2 percent of global annual revenue, for violations

### Potential Implications for Business

- **Overwhelm individuals** with constant notices and requests for consent
- **Reduce available data** for big-data analytics
- **Threaten the viability** of many Internet monetization strategies
- **Increase administrative burdens** as a result of additional requirements
- **Reduce innovation and future opportunities** through a one-size-fits-all approach to consent

**Sources:** European Commission General Data Protection Regulation; American Chamber of Commerce to the European Union; BT; U.K. Parliament; Interactive Advertising Bureau; BCG analysis.

and regulators about the world of big data. We have found that many regulators are open to a multisided dialogue to help solve these issues together.

All these efforts point to an overarching message: there is less and less difference emerging between strategy and policy. Major Internet players have already seen how regulatory efforts can have a big impact on their corporate strategy. Other companies will increasingly need to understand how the policy world will define or restrict their strategies as well.

### Make Data a C-Suite Issue

It is clear that data represent a significant opportunity. In fact, we estimate that leveraging personal data can be a key driver of growth in many of the world’s economies.

Given the size of the prize and the potential brand risk for the business from getting things wrong, personal-data management cannot sit within one group in the company. It needs to be deeply embedded in the company as a whole, especially in the C suite.

Typically, issues involving personal data are dealt with at a rung or two down the ladder from the C suite, often at the level of the chief privacy, legal, or compliance officer. The approach is one of compliance and risk management, rather than proactive leveraging of personal data to create strategic value.

It is no longer enough for CEOs to delegate this issue to their security, government affairs, and privacy executives. Top executives need to realize that data lie at the core of new business opportunities, efficiency gains, and corporate strategy in the digital economy. Ultimately, we maintain that the personal-data opportunity is so great and the downside of mismanaging personal data is so large that the entire C suite of a company must engage with these issues as the top priorities they are.

### Take the Next Step

A trillion-dollar opportunity has opened up for businesses to create value from personal data. These benefits will flow to shareholders, customers, and society at large. But to treat personal data as a valuable as-

set class, businesses need to understand the ways in which such data work. They must also ensure that there are appropriate rules and processes around the use and management of personal data so that the risks are properly mitigated. For data to flow freely, businesses must begin to rebuild customers’ trust, from the top.

*David Dean is a senior partner and managing director in the Munich office of The Boston Consulting Group. You may contact him by e-mail at dean.david@bcg.com.*

*Carl Kalapesi is a consultant in the firm’s London office. You may contact him by e-mail at kalapesi.carl@bcg.com.*

*John Rose is a senior partner and managing director in BCG’s New York office. You may contact him by e-mail at rose.john@bcg.com.*

# NOTE TO THE READER

## Acknowledgments

The authors thank their colleagues at The Boston Consulting Group who contributed to this publication, including Astrid Blumstengel, Anthony Datel, Stephen David, Thomas Giessen, Antoine Gourévitch, Jonathan Hayes, Martin Hecker, Craig Lawton, Stefan Mohr, Massimo Russo, Stuart Scantlebury, and Rob Trollinger. We also thank Katherine Andrews, Gary Callahan, Angela DiBattista, Gina Goldstein, and Gerry Hill for their help with writing, editing, design, and production.

## For Further Contact

### Ralf Dreischmeier

*Senior Partner and Managing Director  
Global Leader, Information Technology  
Practice*  
BCG London  
+44 020 7753 5353  
dreischmeier.ralf@bcg.com

### Jean-Marc Bellaïche

*Senior Partner and Managing Director*  
BCG New York  
+1 212 446 2800  
bellaïche.jean-marc@bcg.com

### Peter Burggraaff

*Principal*  
BCG London  
+44 020 7753 5353  
burggraaff.peter@bcg.com

### Thierry Chassaing

*Senior Partner and Managing Director*  
BCG Washington  
+1 301 664 7400  
chassaing.thierry@bcg.com

### Enno Danke

*Principal*  
BCG Munich  
+49 89 231 740  
danke.enno@bcg.com

### David Dean

*Senior Partner and Managing Director*  
BCG Munich  
+49 89 231 740  
dean.david@bcg.com

### Frank Felden

*Partner and Managing Director*  
BCG Cologne  
+49 221 55 00 50  
felden.frank@bcg.com

### Michael Grebe

*Partner and Managing Director*  
BCG Munich  
+49 89 231 740  
grebe.michael@bcg.com

### Heiner Himmelreich

*Partner and Managing Director*  
BCG Amsterdam  
+31 20 548 4000  
himmelreich.heiner@bcg.com

### Michael Hitz

*Partner and Managing Director*  
BCG Sydney  
+61 2 9323 5600  
hitz.michael@bcg.com

### Daniël Hofman

*Project Leader*  
BCG Amsterdam  
+31 20 548 4000  
hofman.daniel@bcg.com

### Carl Kalapesi

*Project Leader*  
BCG London  
+44 020 7753 5353  
kalapesi.carl@bcg.com

### Sunil Kapadia

*Principal*  
BCG New York  
+1 212 446 2800  
kapadia.sunil@bcg.com

### Thomas Krüger

*Principal*  
BCG Düsseldorf  
+49 2 11 30 11 30  
krueger.thomas@bcg.com

### John Rose

*Senior Partner and Managing Director*  
BCG New York  
+1 212 446 2800  
rose.john@bcg.com

© The Boston Consulting Group, Inc. 2013. All rights reserved.

For information or permission to reprint, please contact BCG at:

E-mail: [bcg-info@bcg.com](mailto:bcg-info@bcg.com)

Fax: +1 617 850 3901, attention BCG/Permissions

Mail: BCG/Permissions

The Boston Consulting Group, Inc.

One Beacon Street

Boston, MA 02108

USA

To find the latest BCG content and register to receive e-alerts on this topic or others, please visit [bcgperspectives.com](http://bcgperspectives.com).

Follow [bcg.perspectives](https://www.facebook.com/bcg.perspectives) on Facebook and Twitter.



# BCG

THE BOSTON CONSULTING GROUP

Abu Dhabi	Chennai	Johannesburg	Munich	Seoul
Amsterdam	Chicago	Kiev	Nagoya	Shanghai
Athens	Cologne	Kuala Lumpur	New Delhi	Singapore
Atlanta	Copenhagen	Lisbon	New Jersey	Stockholm
Auckland	Dallas	London	New York	Stuttgart
Bangkok	Detroit	Los Angeles	Oslo	Sydney
Barcelona	Dubai	Madrid	Paris	Taipei
Beijing	Düsseldorf	Melbourne	Perth	Tel Aviv
Berlin	Frankfurt	Mexico City	Philadelphia	Tokyo
Bogotá	Geneva	Miami	Prague	Toronto
Boston	Hamburg	Milan	Rio de Janeiro	Vienna
Brussels	Helsinki	Minneapolis	Rome	Warsaw
Budapest	Hong Kong	Monterrey	San Francisco	Washington
Buenos Aires	Houston	Montréal	Santiago	Zurich
Canberra	Istanbul	Moscow	São Paulo	
Casablanca	Jakarta	Mumbai	Seattle	bcg.com