

THE BOSTON CONSULTING GROUP

THE DIGITAL FINANCIAL INSTITUTION

# The Power of People in Digital Banking Transformation



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-forprofit 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 82 offices in 46 countries. For more information, please visit bcg.com.



THE DIGITAL FINANCIAL INSTITUTION

# The Power of People in Digital Banking Transformation

Elizabeth Kaufman, Allison Bailey, Kilian Berz, Stephanie Choo, Martin Danoesastro, Christophe Duthoit, Mark Greenberg, Roman Regelman, and Victoria Roig

# AT A GLANCE

Financial institutions are rapidly building new digital ventures and business models. But too often they don't have the right people and organization to capture these initiatives' full potential.

# **LESSONS LEARNED**

We have identified five lessons that today's financial-services leaders must internalize for their organizations to succeed. Financial institutions need to evaluate their current leadership, structures, talent ecosystems, cultures, and ways of working, and then invest strategically to improve the areas that fall short.

## THE PAYOFF

Organizations that adopt these best practices frequently achieve a boost in net profits of 5% to 15% for the core business. They also gain the opportunity to tap into the potentially deep revenue pools that emerging business models are expected to produce.

AVES OF CHANGE FROM the digital world are dramatically reshaping customer behavior and expectations in banking. Already more than half of consumers access their savings accounts primarily through digital channels. In addition, traditional banks face fresh competition from unexpected new sources. For example, financial technology, or *fintech*, start-ups are using software to disrupt nearly every step of the financial-services value chain—including payments, loans, trade finance, and foreign exchange—with new offerings that fulfill unmet client needs.

Leading financial institutions are struggling to find the right defensive and offensive moves to simultaneously focus on the client experience and reinvent business processes. Most are investing in digital capabilities but often not aggressively enough. Some are taking a multiyear journey toward digital transformation. Others are choosing to acquire existing digital banks to leapfrog the competition and fuel growth. This report is the first in a series on the digital challenges that financial institutions are facing.

In our work on numerous digital transformations, we frequently see companies blindsided by an unexpected and critical problem: they just don't have the right leadership, structures, talent ecosystems, cultures, and ways of working to execute their plans successfully. Incumbent organizations often struggle to determine which one of the many competing units and functions owns the digital agenda and to figure out how to get their leaders quickly up to speed on what might be an unfamiliar digital landscape.

These organizations require new structures that explicitly support the most critical elements of a digital strategy and that can evolve during the transformation journey. Often the demand for talent far exceeds the supply, requiring companies to change the way they build, buy, and borrow scarce digital resources. In addition, they need to embed a digital culture to disrupt the business before attackers do. They also need to borrow agile principles from the software development world and employ them in areas beyond IT.

In our work with leading financial institutions, we have learned five lessons that today's leaders must internalize in order for their organizations to succeed. Companies that adopt these best practices frequently achieve an improvement in net profits of 5% to 15% for the core business from both higher revenues and lower costs. They also gain the opportunity to tap into the potentially deep revenue pools that fintech players are beginning to seize. Frequently, companies just don't have the right leadership, structures, talent ecosystems, cultures, and ways of working to execute their plans successfully.

# Lesson One: Teach Digital to Business Leaders and Teach the Business to New Digital Leaders—at Scale

With digital transformations, as with other transformations, the CEO needs to own and shape the overall vision and to clearly communicate it internally and externally. "Banks don't need a head of digital—that's the CEO," says Brett King, the CEO of Moven.

CEOs are expected to get the entire top leadership team, including members of the board and the C-suite, moving in the same direction and speaking with a common voice. And the first step in doing so is to clarify who owns the agenda. With digital, in particular, that can be challenging. Executives from disparate business units and functions rush to take action and do the right thing, but a lack of coordination ultimately means that no one has clear responsibility for the overall agenda.

Nevertheless, once the CEO has managed to align the top leadership team and establish responsibility for the agenda, management can begin spreading the digital vision throughout the organization. This, however, is where things get especially tricky. What differentiates digital transformations from other leadership alignment challenges is that CEOs often must mobilize management to march in an unfamiliar new direction—one that both reinvents the customer journey within the core business and builds capabilities to create new, disruptive digital business models—without, as the saying goes, knowing what they don't know. Rarely do senior leaders have the expertise about the digital world that they need. They may have heard of PayPal and Apple Pay, but they may not necessarily have a deep understanding of the newest fintech players and technologies. Such executives must be brought up to speed quickly.

Getting to that point requires a new approach to leadership development. In addition to developing existing leaders, companies need to inject new digital talent into the organization and provide training in the business.

Rarely do senior leaders have the expertise about the digital world that they need. Some leading organizations have deepened their existing executives' understanding of technology through tailored digital leadership and immersion programs that encourage learning by doing. Effective digital leadership-development programs typically include experiential and other novel learning methods, including attending digital road shows, which display the latest digital technologies; conducting digital immersions, including visits to digital hotbeds such as Silicon Valley; building real-world applications through rapid prototyping, testing, and development—or *sprints*; and engaging in business simulations and interactive scenarios. (See Exhibit 1.) The programs cascade at scale throughout an organization as leaders teach leaders.

Other companies acquire digital talent externally, hiring senior executives with deep technology expertise and outstanding business acumen and then teaching them their business. BBVA, for example, aggressively sought out and hired external senior leaders in 2015. One of those recruits was Javier Escobedo—the new head of e-commerce, marketing, and brand management—who came from Expedia.

Effective organizations cultivate a better understanding of the core business through a comprehensive on-boarding program in which C-level executives give

EXHIBIT 1   Digital Leadership-Development Programs Often Take Experiential Forms				
DIGITAL ROAD SHOWS	Vendors display the latest digital technologies and show how they can disrupt existing business models			
DIGITAL IMMERSIONS	Companies visit digital hotbeds, such as Google's campus in Silicon Valley			
DIGITAL SPRINTS	Companies build real business applications using rapid prototyping, testing, and development			
EXPERT WORKSHOPS	Executives experience in-depth case studies, discussions, and exercises led by experienced faculty			
BUSINESS SIMULATIONS	Leaders get hands-on practice in digital development through simulated business exercises and interactive scenarios			
PEER-TO-PEER LEARNING	Leaders take advantage of moderated discussion boards and blogs			
REVERSE MENTORING	Older leaders with less digital experience receive coaching from younger employees with more experience			
Source: BCG analysis.				

new digital leaders a holistic orientation about strategy and future priorities. They also make sure that new leaders have close and regular engagement with business unit leaders, such as by jointly owning a pilot project and results.

# Lesson Two: Build Evolvable Structures That Support Critical Elements of the Digital Strategy

Business historian Alfred Chandler coined a well-known maxim in organization design: structure follows strategy. That is, organization design should grow out of a company's strategic vision, not the other way around.

Digital transformations can turn that axiom on its head. Certain structures are unique to digital and must be built in conjunction with setting strategy in order to fuel transformation more quickly and effectively. We see four key areas in which companies must provide digital capabilities at scale, tied together with a governance model to ensure collaboration and funding and to navigate key policy issues:

- **Digital customer-experience expertise** embedded deeply within the business but coordinated sufficiently to ensure a seamless customer experience across business units
- A big-data and advanced-analytics platform accessible to local business-unit teams but maintained and coordinated centrally
- An ability to continuously improve end-to-end processes through the coordination of implementation experts in the business units

• An innovation hub with dedicated business-unit resources to continually create new business models and attacker strategies

Given the scarcity of digital talent, however, companies should not follow the traditional dictum of separating people and position. They can't simply define these roles, particularly at the top, and then try to find the people to fill them. Rather, they need to be more flexible in shaping leadership structures around the talent that they can acquire, whether from outside the company or redeployed from the inside.

And they should be prepared to move and evolve quickly to keep up with the pace of digital transformations. We have found that companies need to move through a series of three interim phases featuring centralized and decentralized structures. (See Exhibit 2.)

- **Digital Opportunism.** The motto of this phase is "let a thousand flowers bloom." To create one-off change and quick wins, the organization embeds digital experts in the segments that have a strong need for change, such as a large and influential business unit. These experts champion adoption across the business and build a groundswell of support for change.
- **Digital Centralism.** As digital activities begin to spread across the organization, a strong digital unit takes ownership of them, managing initiatives from the center and building economies of scale in tools and processes. The unit leads the agenda, ensures coordination, and manages execution, being careful not to pull resources away from the business.

### EXHIBIT 2 | Organizations Follow Three Phases in Their Digital Transformation Journey **DIGITAL OPPORTUNISM DIGITAL CENTRALISM DIGITAL ACTIVISM** Pros: Pros: Pros • Champions digital adoption within the · Builds digital tools, digital processes, Manages digital policy from the center business, building a groundswell of and digital talent at scale to maintain quality and create scale support Provides clear ownership and · Entrusts digital execution fully to Allows for quick wins specialized expertise business units Delivers an integrated and standardized • Ensures a cohesive digital strategy at end-to-end customer experience the enterprise level • Limits innovation outside the core · Positions the CEO as the de facto business Cons: digital leader · Creates business-unit-centric thinking • Requires a strong mandate to create and a fragmented customer experience change Requires strong digital leaders Requires significant resources in each business unit that deeply understand Requires tight integration between the digital center and business units for digital execution Source: BCG analysis.

Digital Activism. While digital transformation becomes deeply embedded
within all business units as a core part of the strategy, centers of excellence
move to a more lean activist model, overseeing policies, tools, and processes
from the center to support execution, which is coordinated and managed at the
local level from within the business units. Centers of excellence push resources
back out to the business.

# Lesson Three: Transform the Way You Build, Buy, and Borrow Digital Talent

Companies have been performing strategic workforce planning for some time. What's new is that the specific skills needed to become a digital organization today differ a great deal from those required in the past. Digital transformation requires skills in areas such as big data and advanced analytics, agile processes, digital content, infrastructure management, mobile interfaces, the digital customer experience, risk and security management, payments, and digital branding and marketing. (See Exhibit 3.)

The demand for these skills is completely out of alignment with the supply, however. Banks can't build enough talent fast enough by developing their own people. And there simply are not enough tech-savvy people available for hire by every bank that wants to go digital, even if each one pays well and creates a work environment filled with Foosball tables and never-ending gourmet meals. They also cannot recruit enough people through acquisitions. Smart banks will therefore need to hone their ability to borrow talent, tapping into contingent labor, such as freelance expertise in data privacy, much as they rely on outsourcing today.

### **EXHIBIT 3 | Banks Require Digital Skills in Nine Areas** Data science • Mobile app and site development Web analytics Mobile user experience · Data quality and maintenance · Mobile data and geolocalization • Business intelligence • Mobile quality assurance Data architecture • User-experience design Scrum master skills Web development. • Product owner skills • Digital front-end development · Agile engineering Omnichannel • Digital innovation and new digital-product Agile coaching conception · Quality assurance development IT risk · Digital content marketing Technical security • Web and app editorial Emerging threats • Cloud infrastructure (PaaS1 and IaaS2) Digital payments Cloud operations E-commerce • Big-data platforms and tools · Legacy infrastructure maintenance Social media marketing, community and transformation management, e-reputation, advocacy marketing • Traffic acquisition • Enterprise architecture SoA development<sup>3</sup> Display and video marketing Source: BCG analysis. <sup>1</sup>PaaS = platform as a service. <sup>2</sup>laaS = infrastructure as a service. <sup>3</sup>SoA = service-oriented architecture.

Our experience shows that the biggest organizational effort often comes from building up internal talent by augmenting the skills of front- and back-office staff. Digitally advanced banks, for instance, employ digital retraining programs as part of their strategic workforce planning to bring core staff up to speed quickly and to enable them to work efficiently across channels.

To attract talent, compensation and benefit structures may need to align more closely with the technology companies against which banks now compete.

In the building of talent, new expert-track career paths sometimes need to be created for individual contributors who may have limited interest in managerial roles but who still want to advance in the organization. Tech companies have long had positions, such as fellow, that often come with broad external recognition and include opportunities to publish, patent, and promote the company internally and externally. As companies think about these new paths, they also may need to envision career lattices that allow experts to chart their development among management, coach, and line roles.

Changes may also be needed in evaluation systems. Some digital companies that banks often compete with for talent have eliminated performance reviews altogether in favor of informal 360-degree reviews or self-management. Adobe Systems, for example, eliminated traditional performance-management reviews in 2012. The company moved from annual performance ratings to frequent, informal check-ins, during which managers have fair but sometimes tough discussions with employees about performance and offer targeted coaching and advice. Since Adobe instituted the program, voluntary and involuntary departures have decreased by 30% to 50%, respectively, and many are now "nonregrettable" departures.

When buying talent from outside the company to fill skills gaps, leaders must build new engines to source talent, ensure competitive compensation and benefit levels, give employees clear roles, and integrate new hires into the organization with effective on-boarding and support. Often that requires revamping internal processes, upgrading capabilities, and changing the culture. To attract talent, compensation and benefit structures may need to align more closely with the technology companies against which banks now compete. Consider Netflix, where managers assess the market for each employee by asking three questions:

- What could the employee get elsewhere?
- What would we pay for a replacement for that person?
- What would we pay to keep that employee?

The company pays at the top of the market, and employees decide how much stock versus cash they want to receive.

Finally, to access freelance talent, leaders can take advantage of new outsourcing platforms, such as Kaggle and Upwork. Many organizations also hire external coaches, including companies such as Pivotal Software, to source agile-development capabilities. At the same time, companies must also develop a flexible organization capable of integrating contingent workers; monitoring, rating, and tracking contingent-worker services around the world; assessing, storing, and using the

work produced; and developing new ways of managing intellectual-property ownership.

To build, buy, and borrow workers for a digital talent ecosystem, smart companies identify the capabilities required for the post-transformation future and assess the gap between those capabilities and the current level of skills. Then they proactively design a talent strategy for each capability required to reach that goal, taking into account the supply of and demand for each skill. Whatever skills companies can neither build nor buy will need to be borrowed by hiring freelance workers and by creating sourcing relationships with other companies.

# Lesson Four: Embed a Digital Culture to Disrupt the Business Before Attackers Do

It's not news that traditional banking cultures are often rigid, siloed, and risk averse. Failure can have severe consequences for a business in which a large amount of value is at risk.

The cultures of digital attackers, however, could not be more different. The digital leaders we have studied share five important cultural attributes:

- Customer Centricity. They keep the customer first and innovate on the basis of customer insights, not on the basis of product or technology. Jeff Bezos, the CEO of Amazon, brings an empty chair to meetings to remind top executives that the customer is the most important person in the room. Every year, thousands of Amazon managers attend two days of call center training, and they field calls periodically.
- Experimentation. They encourage their employees to try new things and to learn from failure. As tech guru Tim O'Reilly says, "Pursue something so important that even if you fail, the world is better off with you having tried."
- Agility. They act quickly through sprints, rapidly adapt to changing requirements, and remove barriers to the fast implementation of ideas and innovation.
   For example, 12 principles guide companies that adhere to agile software-development practices. The first principle: "Our highest priority is to satisfy the customer through early and continuous delivery of valuable software."
- Collaboration. They remove silos and encourage horizontal collaboration and openness. For example, selflessness is one of the nine key behaviors and skills that Netflix values in its employees. The company gets rid of "brilliant jerks" who can't collaborate.
- **Continuous Innovation.** They build an atmosphere of innovation to keep pace with evolving digital trends. LinkedIn, Apple, and Microsoft, for example, give employees time and resources to pursue their own projects.

We have found that successful companies are clear about the winning behaviors they expect from their leaders, and they tie those behaviors to specific actions.

Digital leaders share five important cultural attributes: customer centricity, experimentation, agility, collaboration, and continuous innovation.

CUSTOMER	Hire talent who are similar to future customers	Locate developers close to customers,	Start new employees on the
CENTRICITY	in terms of age, skills, and lifestyle	such as in branches, to encourage interaction	front line in all départments
EXPERIMENTATION	Hold quarterly innovation forums, presenting industry trends and new projects	Assign dedicated budgets for experimentation	Hold innovation open houses, encouraging everyone to bring ideas
AGILITY	Run all updates as stand-up meetings	Downsize traditionally structured teams to signal change	Explicitly increase individual accountability of junior staff for project decisions and approvals
COLLABORATION	Build collaborative, informal workspaces	Revise bonus structures with a bias toward team performance	Fire consistently noncollaborative employees
CONTINUOUS INNOVATION	Hold regular internal competitions for innovation, such as "hack days"	Allow dedicated time for innovative side projects	Hold open hours for senior executives and quarterly all-hands calls

They go beyond the so-called moments of truth—such as when companies hire, celebrate, promote, and fire employees—and instead treat every day as this kind of opportunity. (See Exhibit 4.)

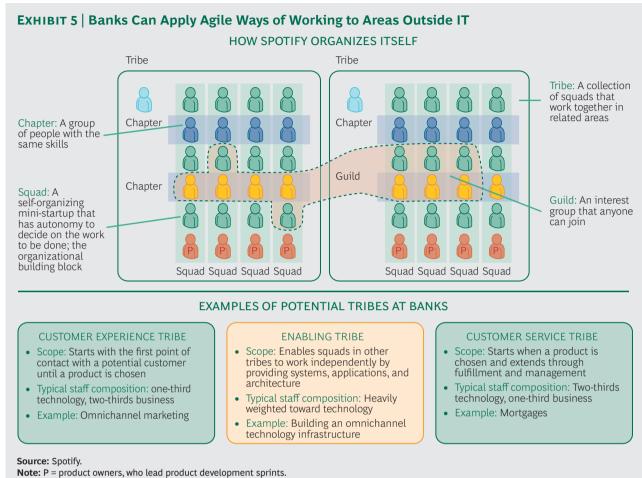
# Lesson Five: Extend Agile Ways of Working to Areas Beyond IT

To keep up with the rapid pace of change and innovation in the digital world, companies need to extend the agile principles that have been around for decades in software development to other areas of the business.

With an agile approach, the focus is on empowering people to collaborate in multidisciplinary teams and make decisions quickly and effectively. We see many benefits of agile processes over traditional ones. Short iterations mean that teams can change direction and react quickly. Progress remains visible and predictable because development happens in short sprints. Delivery risk progressively declines.

Leading banks often think about implementing an agile approach in three phases: first within IT, then scaling to select parts of the business, and finally extending throughout the business. On the basis of our work with leading companies, we see great potential for extending agile principles beyond software development to include functions involved in delivering customer propositions, such as product management, marketing, and digital channels. Elements of an agile approach—such as having small multidisciplinary teams work in sprints and conducting short daily meetings where people stand up—can even be applied to support functions, such as human resources and risk.

Spotify offers an example of how agile principles can be applied at scale across IT and product management. (See Exhibit 5.) The company's delivery organization is made up of *squads*, *chapters*, *tribes*, and *guilds*. The primary unit is the squad, a mul-



tidisciplinary team whose members work toward a shared goal. Chapters are groups of people with similar expertise across squads, and they form the line organization. Tribes are groups of squads that work on related areas. Guilds are interest groups that anyone can join. In this model, creating alignment among all these working groups enables squads to have greater autonomy and empowerment, which supports a culture of innovation. Banks could use this same model in their delivery organization to improve customer service and experience. For example, ING Netherlands, the Dutch domestic-banking unit of ING, has already made strides toward greater agility by adopting the Spotify model. (See the sidebar, "Agile Ways of Working at ING.")

Such agile ways of working require that companies develop new roles. For instance, companies must develop multidisciplinary teams with positions such as agile coaches, as well as product owners who lead product development sprints. Existing roles also may need to change significantly. With agile ways of working, companies distribute the traditional responsibilities of the manager across the product owner, chapter lead, and agile-coach roles. Changes such as these can stimulate cooperation across traditional organizational silos, among other important benefits.

# AGILE WAYS OF WORKING AT ING

Facing pressure from digital innovators who are increasingly influencing customer expectations, ING Netherlands (the Dutch domestic-banking unit of ING), embarked on an agile transformation with three objectives:

- Allow the bank to respond more quickly to changing customer requirements.
- Increase efficiency and effectiveness by breaking down organizational silos and removing bureaucracy.
- Increase staff engagement and make the bank more attractive to digital talent.

Drawing inspiration from Google, Netflix, Zappos, and especially Spotify, the bank reorganized into squads, chapters, tribes, and guilds, with employees from marketing, product development, digital channels, and IT working together in small, multidisciplinary, colocated teams. Teams are empowered end-to-end to develop, test, deploy, maintain, and adapt customer processes and offerings according to their specific purposes. At the same time, the bank adopted a new governance system to ensure

that teams are aligned with the company's larger business objectives and overall purpose.

The agile transformation has enabled teams to move from releasing software a few times per year to once every few weeks. And although gaining efficiency was not a goal in itself, extending agile principles to areas beyond IT assisted the bank in reducing the size of the workforce by 30% in areas such as marketing and channel and product management. Meanwhile, the bank's digital ambitions and innovative culture have helped attract talent from outside the company to strengthen its internal capabilities in the most important areas.

"Critical for the agile transformation was an aligned leadership team, eager to learn from organizations outside our own industry and willing to embrace change," said Bart Schlatmann, COO of ING Netherlands. "We came to realize that the bank is increasingly becoming a tech company, and we believe agile should be a way of living for everyone."

# Bringing It All Together at BBVA

In 2006, Francisco González, the chairman and CEO of BBVA, attended an event with high-profile tech leaders, including Steve Jobs, which prompted his vision to radically change the bank. He later declared his vision to "build the best digital bank of the 21st century." He considers digital transformation to be the top priority for the organization. As he wrote in the *Financial Times*, "Banks need to take on Amazon and Google or die."

The entire C-suite now buys into the extensive changes needed to disrupt the status quo at the company. Many executive-committee heads have extensive digital expe-

rience, having been recruited from external digital innovators or promoted from their company's internal digital unit.

BBVA's transformation journey comprised several stages. At first, digital responsibility resided with IT. Several digital centers of excellence emerged to address high-priority issues, such as mobile banking, big data, and advanced analytics. Next, responsibility for digital moved into a digital banking unit reporting to the CEO, with a separate team and a mandate to lead the digital agenda across the business and the bank. Currently the digital unit is embedded in the business. A new customer-solutions unit leads the global development of an end-to-end customer experience, with real-time customer trials conducted by an innovation lab. The company encourages risk-taking with a budget allocated to projects that have strategic value, such as digital wallets, even though they may not have a viable short-term business case. Anyone can submit and vote on an idea; top ideas get funded and delivered.

With the goal of accelerating its digital banking expansion in the United States and beyond, the company acquired Simple, a US-based digital bank whose disruptive business model features no overdraft or monthly fees, a network of fee-free ATMs, and automatic saving and budgeting tools.

While past performance is no guarantee of future results, and even though all the company's results cannot be entirely attributed to BBVA's digital transformation plan, so far many signs are encouraging. The number of BBVA's digital customers increased by 68% from 2011 to 2014, reaching 8.4 million in mid-2014, of which 3.6 million were active mobile users. Because of the increasing use of digital channels and efforts to reconfigure the bank's branch network—creating smaller branches that emphasize customer self-service and larger branches that provide higher levels of personalized advice through a remote cross-selling support system—BBVA achieved a reduction in costs of 8% in 2014, or €340 million, in the core business in Spain. Meanwhile, the bank's net profits increased by 26% in 2014, reaching €2.6 billion.

THE DIGITAL WORLD offers both major opportunities and threats. To succeed with digital transformation, companies must understand their starting positions and plan the right path forward. We see two potential routes for financial institutions to become attackers: a step-by-step transformation journey over several years, moving through the interim organization models above, and a reverse takeover of an existing digital bank that eventually cannibalizes the traditional bank.

But without the right people and organization, those strategic and operational plans will likely falter. Financial institutions need to evaluate their current leadership, structures, talent ecosystems, cultures, and ways of working and then invest strategically in areas where they fall short. With a thoughtful approach, incumbent banks will be better prepared for the next wave of digital disruption—before it hits.

### **About the Authors**

**Elizabeth Kaufman** is a partner and managing director in the Boston office of The Boston Consulting Group. She is a core member of the firm's Technology, Media, & Telecom and People & Organization practices. She is the global leader for the digital organization topic area and is a core member of BCG's Digital Banking Initiative team. Her expertise includes operating-model redesign, large-scale restructuring, cost reduction, and HR transformation. You may contact her by e-mail at kaufman.beth@bcg.com.

**Allison Bailey** is a senior partner and managing director in the firm's Boston office. She is the North American leader for the People & Organization practice. You may contact her by e-mail at bailey.allison@bcg.com.

**Kilian Berz** is a senior partner and managing director in BCG's Toronto office. He is a core member of the Financial Institutions practice. You may contact him by e-mail at berz.kilian@bcg.com.

**Stephanie Choo** is a project leader in the firm's Toronto office. She is a core member of the Financial Institutions practice and has deep topic expertise in financial technology. You may contact her by e-mail at choo.stephanie@bcg.com.

**Martin Danoesastro** is a partner and managing director in BCG's Amsterdam office. He leads the firm's Insurance practice in the Netherlands and is a core member of the Financial Institutions and People & Organization practices. His expertise includes digital and large-scale transformations. You may contact him by e-mail at danoesastro.martin@bcg.com

**Christophe Duthoit** is a senior partner and managing director in the firm's New York office. He is the global leader of BCG's Digital Banking Initiative, a member of the global management team for the Technology Advantage practice, and a member of the leadership team for the Financial Institutions practice. You may contact him by e-mail at duthoit.christophe@bcg.com.

**Mark Greenberg** is a venture architect principal at BCG Digital Ventures, currently based in Toronto. He has extensive digital experience with financial institutions, particularly with people and organization and innovation. You may contact him at greenberg.mark@bcg.com.

Roman Regelman is a partner and managing director in the firm's Boston office. He is the global leader of the digital end-to-end process optimization topic, a member of BCG's Digital Banking Initiative leadership team, and the leader of North American operations for the Financial Institutions practice. He is an expert in service delivery, global operating-model development and deployment, performance improvement, lean, outsourcing relationships, and major business transformation. You may contact him by e-mail at regelman.roman@bcg.com.

**Victoria Roig** is a partner and managing director in BCG's New York office. She is a core member of the firm's Digital Banking Initiative team. Her expertise includes lean-operating-model redesign and large-scale transformations. You may contact her by e-mail at roig.victoria@bcg.com.

# **Acknowledgments**

The authors would like to acknowledge the insights and assistance of their colleagues Lionel Aré, Jean-Michel Caye, Laurent Desmangles, Andrew Dyer, Nicolas Harlé, Derek Hayes, Jim Hemerling, Peter Hildebrandt, Hitoshi Koike, Olivier Morbé, Brad Noakes, Beatriz Reyero, Pedro Soria, and Simeng Zhu.

The authors are grateful to Mickey Butts for his writing leadership and to Philip Crawford and June Limberis for their stewardship in creating this report. In addition, the authors would like to thank Katherine Andrews, Gary Callahan, Lilith Fondulas, Kim Friedman, Abby Garland, and Sara Strassenreiter for their contributions to the report's editing, design, and production.





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	Luanda	Paris	Taipei
Beijing	Düsseldorf	Madrid	Perth	Tel Aviv
Berlin	Frankfurt	Melbourne	Philadelphia	Tokyo
Bogotá	Geneva	Mexico City	Prague	Toronto
Boston	Hamburg	Miami	Rio de Janeiro	Vienna
Brussels	Helsinki	Milan	Riyadh	Warsaw
Budapest	Ho Chi Minh City	Minneapolis	Rome	Washington
Buenos Aires	Hong Kong	Monterrey	San Francisco	Zurich
Calgary	Houston	Montréal	Santiago	
Canberra	Istanbul	Moscow	São Paulo	
Casablanca	Jakarta	Mumbai	Seattle	bcg.com