

HOW WE MODERNIZE BANKING

In this paper, Capco shares its experiences from the front lines of the digital banking revolution. We are not passive, academic observers. We are at the leading edge of this transformation, accelerating our clients' ability to build direct banks based around new business models, employing innovative technologies. We collaborate with clients to quickly launch digital banking products and services — while at the same time bringing in new customers and billions in new deposits, lowering the cost of service, and shaping 21st century ways of being an agile, resilient, customer-centric bank.

Capco is leading the charge toward the modernization of banking with a portfolio of global customers. Our goal is to help clients achieve their vision of a digital bank whose ease and clarity of customer experience moves towards meeting customer expectations set by next-generation brands like Amazon or Spotify.

If you are a business and technology decision-maker at a traditional retail bank, Capco will show you how to make "synergy" more than a cliché: we know how to support

success in entering the direct banking market — while at the same time eliminating creaky old legacy systems and creating the template for a modern banking infrastructure. Finally, we will point to some leading products that are easier to create once we've built together a cleaner, more functional digital banking environment.



Figure 1: A superior direct banking experience attracts new customers and new deposits.

"The risk of doing nothing far exceeds that of responding positively to this new disruptive challenge, and that risk is growing every day. Here's why you should be concerned – and begin to act now."

WHY DIRECT BANKING?

There are a variety of reasons why traditional banks want to, and should, consider entering the direct banking market. First, a huge demographic of desirable customers is attracted to fully digital products and services. Second, technology innovations create opportunities to lower costs and improve customer satisfaction. Third, digital banks allow traditional banks to penetrate new markets with relatively little overhead and no physical presence (although some banks are successfully adopting a hybrid model with low-cost kiosks in strategic locations). Capco has a market-evaluation model that helps clients identify the potential in their target regions for a new direct bank.

Let's go right to the demographic bottom line because the numbers are compelling. With an average age of 47, direct bank customers are six years younger than traditional bank customers. These direct bank customers are more likely to recommend their bank to others — indeed, roughly 75 percent would recommend their direct bank compared to only 55 percent of traditional bank customers.²

Millennials are an obvious target for direct banks: 82 percent own a smartphone and 61 percent engage in mobile banking, compared with 60 percent and 30 percent respectively for their parents. Given the choice between a new financial offering from their own bank and one of the tech giants, 73 percent of millennials would choose Google, Apple or another tech leader.³ For executives of traditional banks, that last preference should be a wake-up call of the challenge that already exists in the battle for new customers.

Between 25 and 30 years of age, bank customers form relationships with products and brands that are typically long lasting and hard to sever.⁴ This age group is beginning to advance professionally and starting to amass wealth. If major banks want to form lifetime relationships with a new generation of customers, they will be required to match the customer experience and offerings of disruptive direct banks.

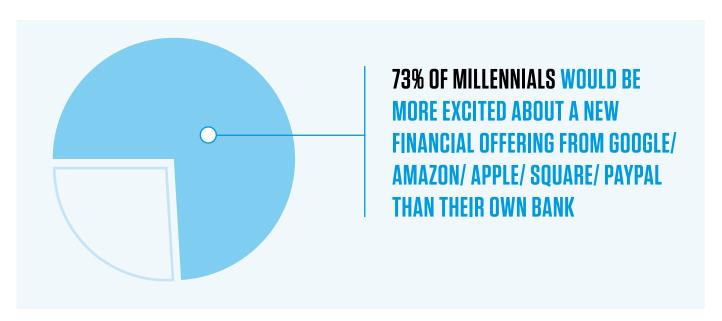


Figure 2: Millennials would choose a financial offering from Google or Apple over their own bank.

- ¹ JD Power, Early Adopters Enjoy Branchless Banking (2017)
- ² American Banker, Consumers Love Direct Banks (2017)
- ³ The Millennial Disruption Index, Viacom Media (2013)
- ⁴ TNS, Direct Banks and the Future of Consumer Banking (2013)

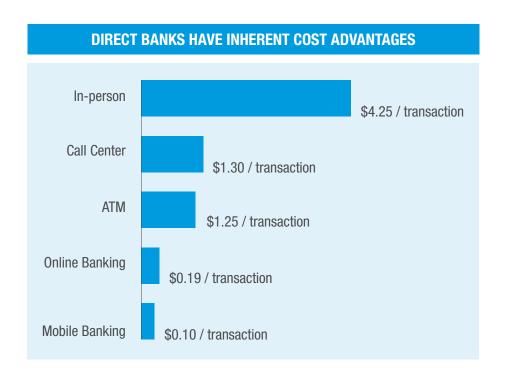
WHY DIRECT BANKING? CONTINUED

Direct banks are adding customers at an 8 percent annual compounded growth rate, and between 2015 and 2020, nearly 50 million new customers will begin using a direct bank.⁵ By contrast, the number of customers using physical branches has declined by 9 percent in just the last three years, and that decline is expected to continue.⁶

Direct banks are growing rapidly because they save customers money and are more convenient to use. While trust, security, and legal issues still worry some customers, these barriers are falling. Direct banks are capturing a large proportion of new customers, and the top direct banks

continue their growth trajectory at a notable pace. Ally Bank, one of the top four direct banks, grew total deposits by more than \$20 billion (more than 35 percent) from 2014 to 2016. By comparison, the top five U.S. traditional banks have grown deposits on average by only 6.6 percent.⁷

The cost advantages of digital banking are, if anything, more impressive than the growth story. The cost per transaction with a teller at a branch bank is \$4.25, and even call center or ATM interaction costs more than a dollar per transaction. But online and mobile banking transactions cost only 19 and 10 cents each⁸ respectively.



- ⁵ Frost & Sullivan, Global Rating of Direct Banks (2016)
- ⁶ Celent (2014)
- ⁷ FDIC: Statistics on Depository Institutions (2017)
- ⁸ The Financial Brand, The Rise of the Digital-Only Banking Customer (2017)

WHY DIRECT BANKING? CONTINUED

With higher interest rates for customers and low operating costs for direct banks, the migration to direct banking shows no signs of slowing. Several large financial institutions, including Goldman Sachs, MUFG and Discover recently launched new direct banks. As they grow, direct banks such as CapitalOne360 and Ally are expanding their range of services (see table).

Even with all the digital storm clouds brewing, Capco believes that traditional banks that have a large physical footprint are not going away anytime soon, if ever. On the contrary, traditional banks can leverage their reputation and vast resources to gain competitive advantage by introducing offerings that compete with direct banks. Launching a new direct bank can circumvent fragile core systems and pave the way to lower costs, more customers, and easier adoption of new products.

MAJOR DIRECT BANK PLAYERS AND OFFERINGS

ally DISC VER E*TRADE **GS Bank** Nationwide⁶ ✓ Checking ✓ Checking Checking Checking ✓ Savings Checking ✓ IRAs ✓ CDs Savings Savings Savings ✓ Savings Money Market ✓ Money Market ✓ Money Market ✓ Brokerage ✓ Money Market ✓ IRAs ✓ IRAs ✓ IRAs Managed ✓ IRAs √ 401k √ 401k ✓ CDs ✓ CDs **Portfolios** ✓ Brokerage ✓ Brokerage ✓ Home Loans ✓ CDs ✓ CDs ✓ Auto Loans ✓ Home Loans ✓ Home Loans ✓ Auto Loans ✓ Auto Loans

Figure 4: As they mature, direct banks are adding a variety of financial services.

DELIVERING DIGITAL

Capco has accumulated an impressive international portfolio of direct banking success stories. We can provide clients with a rich perspective on the banking industry's challenges, informed by what we are seeing and doing with other financial institutions - both inside and outside the United States.

DIRECT BANK LEADERSHIP

- We are a market leader in providing consulting services to launch new Digital and Direct Banks. We serve clients who are launching basic products as well as those who are reinventing what financial services means.
- Over the course of 2016 and 2017, Capco has assisted four discrete clients in their Direct Bank Launch journey.
- Our guidance on where to focus and how to design direct banks based around the unique market characteristics drives our client's success in the marketplace.

Capco initiates strategic analysis at the beginning of any engagement and deploys a skilled execution team to design a market leading experience, products and enhance the speed to market. Our agile approach means that clients can choose from a suite of services ranging from program support to program leadership to full delivery in launching a market-ready product. Here are a few examples from the front lines:

Combine a hybrid direct bank initiative with a deposit growth strategy.

The bank wanted to pursue an aggressive, two-pronged deposit growth strategy combining the launch of a nationwide, uniquely branded direct bank with a physical expansion into specific new markets. Capco supported all elements of the transformation program, including operations, risk/compliance, and product marketing in addition to leading the design of the new banking platform. We leveraged our banking industry expertise to implement state-of-the-art processes and a superior customer experience.

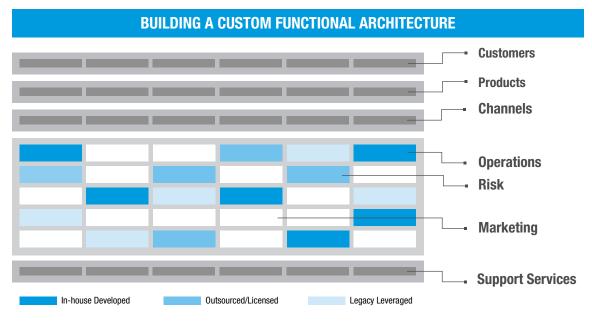


Figure 6: Banks can strategically design products, channels, and functional architecture to influence cost structure as well as time to market.

DELIVERING DIGITAL CONTINUED

Align a new direct bank with a new deposit platform.

The client, a New York-based subsidiary of a European investment bank, wanted a new direct bank to provide a unique digital experience for high-net-worth customers and entrepreneurs. Capco provided clear objectives, evaluated the vendor's technology against our Target Operating Model to identify potential gaps, and initiated a business and technology delivery structure to accelerate the program.

Launch new direct bank with cross-border customers.

The client, a large Canadian bank, had recently sold its U.S.-based subsidiary and wanted to launch a new direct bank that could support a group of cross-border customers retained after the sale. With a 25-person team, Capco managed the launch of a direct bank working with several third-party vendors and guided conversion of the cross-border customer group — on time and on budget. Our deep industry experience converting core banking platforms

helped us streamline and manage this complex effort. The deal structure aligned Capco's engagement with the client's goals, risk, and reward.

Create the middle tier of a new digital bank.

A major South American bank wanted Capco to architect and build the middle tier of a new digital bank. The bank chose Capco over a number of system integration companies based on our proven ability to deliver digital transformations, our subject matter expertise, and our strong market relationships. The new bank is live in the market and currently has more than a million customers.



LESSONS FROM THE FRONT LINES

From these and other experiences with digital bank launches in the United States and in other countries, we have distilled some important lessons learned. Here are a few that we emphasize to all clients:

LESSON 1 - INVEST EARLY AND HEAVILY IN THE DESIGN AND ARCHITECTURE OF YOUR NEW BANK.

Why focus so intensely on the initial design? The long-term success of a direct bank depends largely on the quality of the customer experience. In large part this means that your new digital bank must be distinct and differentiated from other banks already in the marketplace. This differentiation is difficult to achieve because currently available technology platforms have not caught up with market demand for improved customer experience. This requires that the user platform — what the customer sees — is to be largely a custom design.

BANK CUSTOMER EXPERIENCE RATINGS

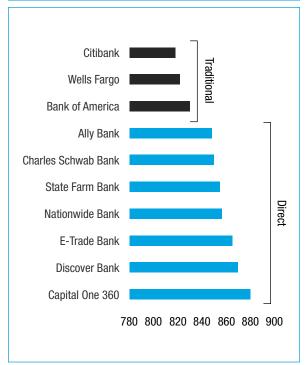


Figure 7: Direct banks top the charts of customer experience ratings.

LESSON 2 - PICK YOUR TECHNOLOGY SOLUTION FOR TOMORROW, NOT TODAY.

The key here is to be forward-thinking and plan for what you may need for tomorrow. Think of this requirement as a "known unknown." Integration with new services and products are almost certainly a post-launch requirement for most de novo direct banks.

Why choose your technology for tomorrow's vision rather than today's imperatives? First, it costs more to retroactively modify your technology base in the future than to invest in better systems up front. Licensing fees can mount, and system integration costs can be exponentially higher in the future — an especially daunting prospect if you just invested in a major systems integration a couple of years earlier.

Second, with forward-looking technology, your bank will be better able to compete by offering superior products, services, and customer experiences. These superlatives are difficult to achieve with off-the-shelf technology.

REFERENCES

9 JD Power Ratings (2017)

LESSONS FROM THE FRONT LINES CONTINUED

LESSON 3 - UTILIZE THE DE NOVO BANK – YOUR NEW DIRECT BANK – TO SET THE NEW STANDARD FOR OPERATIONAL AND IT EFFICIENCY.

Capco played a key role in launching a hybrid direct bank (described above) that combined a deposit growth strategy with expansion into new regions. This bank was built with new technology, new operational processes, and a unique customer experience. We assisted in creating an account origination process that drastically reduced the time required for new account origination.

All these new direct bank elements — which Capco and our clients implemented in a smaller, more controlled environment— were more efficient and therefore more cost effective than legacy processes. The launch of this hybrid direct bank was so successful that new systems are now being tested and adopted to improve the bank's legacy operations.

THE CAPCO APPROACH

As you've just read, we've proven our approach to launching direct banks in real-life situations in several geographies, giving us an inventory of techniques and technologies to accelerate successful delivery of a new direct bank.

Working with Capco, our clients can be confident that they can quickly enter the digital space with a market-ready strategy aligned with their vision and brand and tailored to practices in their country. We do not build Potemkin banks¹⁰; we are only interested in launching the real thing. We develop the strategy, trace the customer journey, build the digital infrastructure, and launch the bank.

Breaking it down further, here is a typical template of what we do.

INTEGRATING VISION/BRAND/STRATEGY

We begin with a strategic focus. Working closely with you, our client, we probe to gain a deep understanding of your enterprise vision, articulate the brand to distinguish it in the marketplace, and jointly define a suitable strategy.

One key question guides our validation of your digital vision: "What aspects of your business model need to change to

realize your digital vision and opportunities?" We focus on a critical understanding of the products and services that your target customers want and need, building a consistent digital experience across all channels of your offering.

REFERENCES

¹⁰ Like the fake villages erected by the 18th century Russian prince Potemkin, "Potemkin banks" look great but lack the underlying applications required to support full digital banking. Jost Hopperman, "An Introduction To Digital Core Banking: Avoid The Potemkin Effect And Ease Your Banking Platform Transformation," Forrester Research, Inc., 2016.

THE CAPCO APPROACH CONTINUED

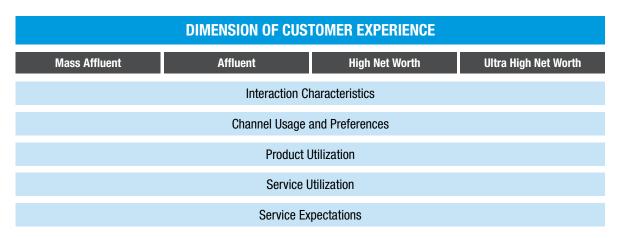


Figure 8: The most critical element in launching a customer-centric direct bank? Understanding the target customer segment(s).

TRACKING THE CUSTOMER'S JOURNEY

The next phase is to envision every step of the customer's journey, tracing their digital footsteps and blazing new pathways, rethinking and re-engineering worn-out systems with a highly functional digital product. To understand the customer journey, we begin by understanding the most critical element when launching a customer-centric direct bank: the targeted customer segments.

A clear understanding of the targeted customer segments is essential to creating the desirable customer experience. Capco helps our clients gain a deeper insight into the most promising customer segments through demographic research, focus groups, customer interviews, and other techniques. Then we turn to assembling the bank.

ASSEMBLING THE DIGITAL BANK

Taking what we've learned from our strategic assessment and evaluation of the customer journey, we begin the structural business design process with an overarching Target Operating Model that enables us not only to articulate the structure details but also to apply theoretical testing.

This approach has several advantages: Use of the target operating model instills a common approach and discipline – for the client and for Capco's team. It links intricate process flows to a set of business services, and it clearly identifies beginning and end points of each banking process. Because this model is repeatable and reusable, it's a key element in our arsenal of accelerators – those proven templates that Capco brings to new clients to "accelerate" the launch of a new digital product.

LAUNCHING A DIRECT BANK

As the new digital bank is rolled out, Capco tracks the benefits being realized and helps clients pivot to achieve even more aggressive goals. For example, by identifying and prioritizing the profit drivers, we can evaluate the type and level of investment needed to achieve the maximum impact on:

- · Operating cost
- · Deposit growth
- Customer acquisition
- · Customer experience

How we deploy next generation technology stacks and new business models enables clients to rapidly attain their strategic vision. We shape winning, market-ready strategies that embody the vision of your brand in the marketplace. We guide you through the critical decisions, apply rigorous logic to rethink business processes, and bring your bank to the forefront of the digital landscape.

BANKING AT THE LEADING EDGE

Creating a direct bank can not only blaze a trail to more efficient operations, more customers, and new deposits for traditional banks. Embarking on this transformation can also create a shorter pathway to new products and services. Consider two of the most promising and active areas in financial services today: RPA (robotic process automation; also, robotics or robo) and API (application programming interface) integration. The same integrated digital platform that forms the backbone of a direct bank offers a cleaner, simpler infrastructure for adopting robo and API options. Let's examine each potential case more closely.

THE RPA ADVANTAGE

Just as Capco is a leader in ushering legacy banks into the digital marketplace, we also are a leader in analyzing and executing RPA strategies. Robotic Process Automation represents an opportunity for banks to improve their customer experience, reduce compliance risk, and achieve cost savings. RPA can improve the customer experience by greatly reducing the amount of time required for certain approvals. For example, one bank experienced a 90 percent reduction in the amount of time required to process customer advice notes, allowing this insurer to process the notes the same day. ¹¹

Similarly, some of the largest banks find that RPA can greatly reduce operational and regulatory risk - which amounts

to billions of dollars in some cases - by reducing human error and speeding up processing. Through streamlined back office and middle office operations, banks can readily achieve 30 percent cost savings with anecdotal evidence of a payback period as short as three months.

That's where Capco can offer crucial support. We have expertise in developing a digital operating model and culture that supports this transformation. Our experience in direct banking and in digital advice are mutually reinforcing because we've learned that the same customers that are attracted to direct banks are also candidates for accepting digital wealth management.

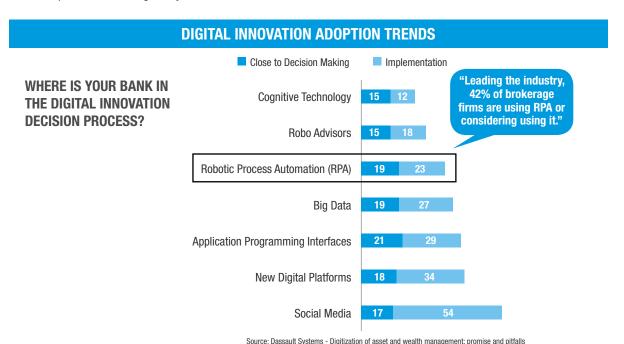


Figure 9: Capco can assist clients as they adopt RPA and other digital innovations to improve their customer experience, reduce regulatory risk, and drive down costs.

¹¹ Ovum, Robotics and Back-Office Automation in Retail Banking, 2017

BANKING AT THE LEADING EDGE CONTINUED

Robo firms have low costs, but their business model may struggle over the long term because they have difficulty attracting customers. Traditional banks have the customer base and resources to launch a successful robo wealth product, but lack the necessary experience, focus, and long-term outlook. ¹² Again, this is precisely where Capco can offer a tailored advice to exploit the potential opportunity in offering an expanded product set to existing clients.

THE API ECONOMY

When you place a 1-Click order through Amazon, you don't pay with coins or U.S. paper. You don't even pull a credit card out of your wallet. You simply touch your mouse pad or your smartphone to place the order, and a day or two later your package arrives at your doorstep. Your payment and your delivery information are processed automatically through Amazon.

That kind of customer experience doesn't just happen. It requires a backbone of technology, i.e. an API. Payments in Amazon fit seamlessly within their website. That's an example of an API-driven process, and it's very difficult to deploy an API consistently across your customer accounts within the legacy systems of the typical traditional bank, with its distributed and antiquated software.

By contrast, the cleaner, streamlined infrastructure of a digital bank makes APIs much easier to deploy. APIs open a wide door to future product development – not only for financial institutions but also for companies that want to interact with a customer of a financial institution.

By setting up a clean API structure within your bank, there are two primary benefits. First, you can work with other companies so that you can offer your banking customers new and more convenient products and services. Second, other companies like Amazon or Lyft can undertake the product development to tie their customers into a digital bank function.

So, when you think, "Who's going to develop something new?" your answer is twofold: it can either happen at the bank, or it can happen outside the bank. Creating an open platform will enable developers to build new applications on top of the bank's infrastructure. This makes it possible for the bank to embed its services within the next generation of mobile applications. ¹³

If you're prepared with an API structure in place, then you're better suited to have your customers participate in innovation more easily and rapidly – for things that we haven't even thought of yet.

APIS- ONE KEY TO IMPROVING CUSTOMER SERVICE

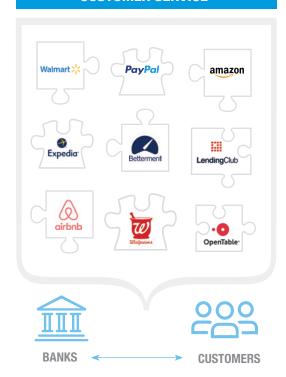


Figure 10: Banks can meet customers' changing needs with a clean digital platform that allows rapid adoption of innovative services.

¹² Banks Could Dominate Digital Investing, But They Won't," Forrester Research, January 11, 2017.

^{13 &}quot;The Rise of the Interconnected Digital Bank," The Capco Institute Journal of Financial Transformation, #44, November 2016.

BANKING AT THE LEADING EDGE CONTINUED

BRINGING TOGETHER A FULL SERVICE OFFERING Banking Products Retirement and Brokerage Advisory Brokerage Account balances **Early Stage Direct Banks** represent 5% of total deposits at Ally **Late Stage Direct Banks No Entry Yet Robo-Advisory Firms No Entry Yet Advice Only Registered Investment Advisors Full Service, Low-Cost Future State Model Low Barriers to Entry Medium Barriers to Entry High Barriers to Entry** · With many established FinTech · Offering retirement and • Full-service digital-advice and Start-Up firms offering brokerage products represents services requires 'Bank-in-a-box" platforms, and effort to create a more substantial investment in launching traditional savings and revenue streams utilizing emerging technologies. This CD products with an outsourced existing digital channels. infrastructure, in it's current back office is cost-effective; state, is being organically checking and loan origination . Many banks that compete in created, as opposed to is more complex, but also more this space leverage functional purchased or outsourced. profitable. groups from sibling subsidiaries or acquired firms.

CAPCO DELIVERS VALUE TO CLIENTS

When you engage with us, in the United States or globally, Capco will work with you to define your direct bank launch strategy, select customer segments and journeys, and identify ways in which to engage the right partners to achieve your strategic objectives.

CAPCO IMPROVES SPEED TO MARKET COST EFFECTIVELY:

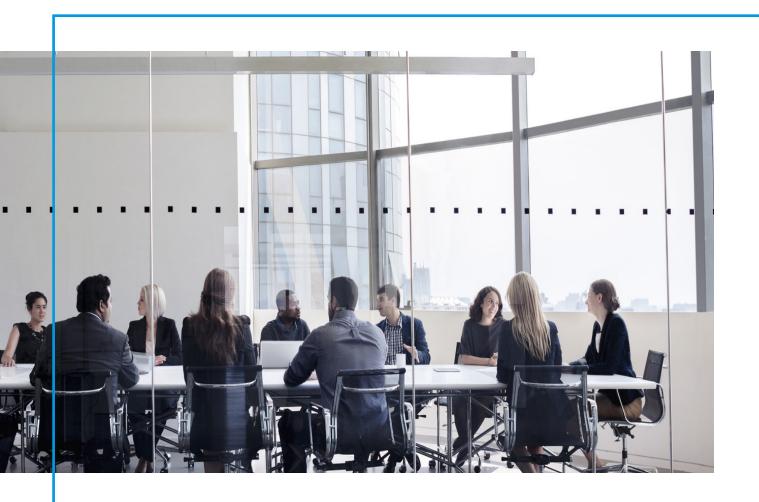
This result is guaranteed by leveraging of Capco's reusable templates ("accelerators") to develop the required business cases and accelerate the process of launching a direct bank.

CAPCO DELIVERS AN INVENTORY OF CUSTOMER JOURNEYS:

We develop these to enhance the customer experience while creating definition and bringing substance to the target operating model; this methodology has proven to be re-usable for future initiatives at the bank.

CAPCO BUILDS AND MAINTAINS AN AGILE ENVIRONMENT:

Our direct banks are built to seamlessly accept changing technology and capabilities. Our command of digital best practices enables us to identify the digital capabilities needed to achieve your digital vision across people, process, and technology. We ensure a seamless transition and operational readiness from day one.



AUTHORS:

Lane Martin Scott Tullio Justin Hayden Sam Awsumb Kevin Miologos

RELATED READING:

Direct Bank Launch, Capco White Paper 2016

ABOUT CAPCO

Capco is a global technology and management consultancy dedicated to the financial services industry. Our professionals combine innovative thinking with unrivalled industry knowledge to offer our clients consulting expertise, complex technology and package integration, transformation delivery, and managed services, to move their organizations forward. Through our collaborative and efficient approach, we help our clients successfully innovate, increase revenue, manage risk and regulatory change, reduce costs, and enhance controls. We specialize primarily in banking, capital markets, wealth and investment management, and finance, risk & compliance. We also have an energy consulting practice. We serve our clients from offices in leading financial centers across the Americas, Europe, and Asia Pacific.

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