Banking on the CIO for Digital Success

Pervasive digital technology is fundamentally changing the retail banking business model, commanding CIOs to radically retool their work styles and priorities. Successful CIOs are fostering relationships inside and out of the enterprise, nurturing a collaborative, startup-like culture and restructuring their organizations to balance run-the-business mandates with digital initiatives, our latest research study reveals.
Executive Summary
Retail banks of every size are striving to remake themselves for the digital age. As our new study shows, CIOs are front and center in this ongoing transformation, as they are uniquely positioned to foster strong collaboration across the business, starting with the IT value chain, which in many cases holds the key to digital success.

For most banking institutions, digital initiatives are largely focused on improving the customer experience and strengthening customer bonds. After decades spent automating back-office and middle-office silos, traditional banks now confront a host of nonbanking competitors (often digital natives) that leverage new digital tools and techniques to enable more frictionless transactions and interactions in the virtual front office.

Fighting back hasn’t been easy; we conducted a survey in late 2015 to better understand where financial services institutions are in their digital transformation, and to gauge the strategic role CIOs are playing in these endeavors (see Methodology, page 13). In our analysis, we identified best practices for digital banking CIOs – in particular, how they manage interactions with other organizational leaders, and simultaneously coordinate the dual mandate of keeping the lights on in their legacy systems while infusing new digital business capabilities into the enterprise.

We also explored the barriers that CIOs face in leading their organizations across the digital threshold, and the limits of digitization in banking today. Specifically, we asked:

- Whether banks are extending digitization to middle- and back-office functions, and how committed they are to making this broad-based investment.

- Whether banks are putting digital tools in the hands of customer-facing personnel.

- How banks are approaching digital channel integration, and to what degree they have integrated online banking with mobile and social applications.

- How effectively they are extracting insights from large data sets and applying them in timely and effective ways.
Solving these issues will be the difference between success and failure as banks face unrelenting profitability and competitive pressures. Making the digital pivot is critical at a time when banks must meet customer expectations for personalized products and services informed by their explicit and/or implicit needs, and accommodate shareholders, many of whom see digital transformation as key to cost containment and market relevance.

The accelerating technological intensity of the banking business manifests itself in various ways, from customer journey mapping, to the blurring of the physical and virtual worlds, especially for branches, which remain strategic in the digital banking world. To deliver on digital’s promise, CIOs told us they must re-double their efforts to collaborate with chief marketing officers (CMO), sharing technological insights to continuously deliver consistent multichannel experiences with finely curated products and services that engage customers and convey the sense that the bank knows them and can address their needs.

Among the key findings uncovered by our research:

- A large percentage of CIOs (45%) say they are leading the digital transformation charge, followed by the CEO (38%) and CMO (8%).
- Nearly-three quarters (70%) of CIOs identified organizational culture as the primary obstacle to digital business success, with 66% citing a lack of commitment from the board and/or CEO to help overcome it.
- Over half of our survey respondents (55%) feel their digital efforts have been successful, while 26% believe they have been moderately successful.

To keep pace with digital change, CIOs need to continuously remake and aggressively upskill themselves and their organizations. In particular, they need to step up as leaders by staking out a transformational path and establishing peer relationships with product and services vendors. Finding common ground with the CMO – as well as balancing the technology agenda to accommodate both traditional and innovative initiatives, especially in the front office – is essential, as this is where the hearts and pocketbooks of customers are won.

As one survey respondent summarized: “We needed to be proactive and reach out to the customer with answers through digital channels. We decided to ditch paperwork and old technology and went digital.”
Drivers of Digital Transformation

We’ve identified five drivers of digital transformation across the retail banking space.

- **The accelerated pace of technology-enabled innovation.** Innovative technologies (e.g., blockchain) are introducing new opportunities for CIOs to advance their organization’s product and service offerings.

- **The need to extend customer-centricity initiatives.** New technologies, coupled with a more technologically fluent customer base, have caught banks’ attention, steering them toward a customer experience-led, insights-driven and connected transformation of business/service models. Financial technology providers have flooded the market with more convenient and effective products, driving customer expectations to unprecedented levels. CIOs must prioritize a service orientation to help their organizations remain relevant and better able to compete with new industry entrants.

- **Consumer dependency on multiple channels.** While the omnichannel trend has helped banks keep pace with customer demands, it has also surfaced the need for a consistent experience across touchpoints and channels. While digital banking can help convert commodity transactions into high-touch, personalized, on-demand services, traditional branch banking still remains strategically important. Physical branches are key to solidifying customer trust, as they enable higher value interactions and transactions built on banking advisory capabilities. Banking CIOs must consider all channels and customer touchpoints in the digital strategy.

- **The mandate for end-to-end process digitization.** To deliver more responsive services, and keep pace with innovative (often nonbanking) competitors, CIOs need to digitize the systems landscape, from the front office to the back office. To enable more flexibility in the digital ecosystem, new-age IT architectures based on micro-services and open APIs are being built to support digitization and modularization.

- **Consumer demand for enhanced customer service through digital tools and services.** With the increase in mobile applications for peer-to-peer lending, crowdsourcing platforms and account summary services, digital CIOs need to utilize these tools to deliver attractive service offerings and provide meaningful and relevant customer service experiences.

Impact of Digital on the CIO Role

Amid proliferating digital innovation in the banking sector, CIOs appear poised to play a more prominent role, from ideation and piloting, through deployment.

**Drive Digital Initiatives**

As seen in Figure 1 (next page), banking CIOs believe the essential elements for a successful digital transformation revolve around leadership, filling skill gaps, developing a clear strategy and understanding the benefits enabled by “being” (vs. merely “doing”) digital.
Foster Collaborative Leadership

To lead the digital transformation, banking CIOs must advance the depth and breadth of their relationships across the organization, particularly with senior leaders in business and marketing, as well as with specialists in digital strategy, enterprise architecture, infrastructure management and data management. On the business and marketing sides of the house, the goal is to leverage enterprise-wide data and analytics capabilities to identify personalized offerings and cross-selling opportunities. Increased technological intensity, particularly in marketing (where data-driven, persona- and segment-driven initiatives have become common), requires close collaboration with the CMO and marketing team, as well as with other C-suite executives who own customer relationships and revenue targets (see Figure 2, next page).

Given ongoing disruption spawned by emerging technologies, the CIO must also take the lead in vendor management, with an eye toward building in-house skills and capabilities, driving innovation and creating an interactive vendor ecosystem (see Quick Take, next page).
As a result of resource constraints following years of limited funding and talent recruitment, third-party partners are extremely important to digital CIOs embarking on or extending transformation initiatives. Partners can enable access to tried-and-true ideas and offer experiences informed by emerging digital trends, tools and techniques.

CIOs should be actively involved in shortlisting and selecting partners, and in developing relevant performance requirements and measurement approaches. Using inventive structures, CIOs need to optimize partner efforts and enable tight coordination and collaboration among internal and external teams, offering incentives that encourage continual innovation and improvement.

An example of the heightened need for partnership collaboration is the banking-as-a-service model, in which the CIO organization creates an open banking platform that connects internal resources, partners and external developer communities. Using the platform, external partners and developers can build innovative solutions leveraging the bank’s data and capabilities (e.g., know your customer services, digital wallets/payment services, etc.), which helps grow the bank’s customer base. Because the services are modular, they enable code reuse benefits and speed development of new business capabilities.

Ultimately, a well-managed and constructed partner relationship not only incubates innovation and collaboration between the bank and its partners, but also accelerates delivery of the envisioned digital transformation.

**Quick Take**

**Demystifying Digital Collaboration**

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**CIO-CMO Must Work Together to Win Digital Transformation**

Respondents were asked which factors were most relevant to digital transformation success

![Image of CIO-CMO collaboration](image-url)
Balance Digital and Legacy Mandates

Success across the banking enterprise will depend on the CIO’s ability to simultaneously manage both digital capabilities (through systems of engagement and systems of intelligence) and legacy system mandates (systems of record), while harnessing underlying execution synergies (e.g., data and infrastructure).

Figure 3 depicts an organizational structure that we believe the digital CIO can embrace to ensure tightly coordinated execution of separate but semi-equal digital and legacy initiatives. A large bank in North America, for example, organized its CIO-led technology office into two separate CTO organizations – one focused on legacy platforms, the other on digital initiatives. While responsibilities are segregated, the two CTO organizations closely collaborate on building out a common enterprise IT infrastructure to meet the bank's cross-functional data management requirements. This approach has helped the bank fast-track the launch of its digital banking products, while giving legacy imperatives the attention they deserve.

Optimal CIO Organization for Digital Success

Promote a Startup Culture and Innovation Mindset

To reflect the dynamism of today’s digital business, CIOs need to embrace and nurture a startup mindset throughout the organization. They need to stay ahead of the digital curve themselves, and engage stakeholders on the promise and challenge of integrating digital tools and techniques into the enterprise information architecture and organizational model. In short, CIOs must act as innovators who are willing to stake their reputation on rethinking traditional banking approaches and investing in new financial technologies.
Act as Digital Change Agent

CIOs told us that significant barriers to success remain. Roughly 70% of respondents identified corporate culture as the primary obstacle, and 66% cited a lack of commitment from the top levels of the organization.

CIOs are well-positioned to act as information brokers across the organization and develop transformational services as the lead change agent in the bank. They can develop talent by building the organizational infrastructure and capacity to further the careers of forward-thinking technologists.

However, success requires CIOs to remake themselves on the fly, transforming into key digital decision-makers and digital business strategy experts. This will require spending more time collaborating with other business unit heads and fully participating on the executive management team (see Figure 4).

Critical Skills, Competencies of the Digital CIO

<table>
<thead>
<tr>
<th>Area</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engage with regulators, clients, media &amp; analysts</td>
<td>49%</td>
<td>43%</td>
</tr>
<tr>
<td>Actively forge internal partnerships</td>
<td>51%</td>
<td>36%</td>
</tr>
<tr>
<td>Reflect on challenges &amp; opportunities to identify the best way forward</td>
<td>38%</td>
<td>47%</td>
</tr>
<tr>
<td>Influence enterprise-wide digital transformation</td>
<td>36%</td>
<td>47%</td>
</tr>
<tr>
<td>Mobilize commitment, creates shared vision and work toward digital transformation</td>
<td>40%</td>
<td>43%</td>
</tr>
<tr>
<td>Ability to justify actions &amp; investments</td>
<td>36%</td>
<td>47%</td>
</tr>
<tr>
<td>Solid business &amp; industry knowledge</td>
<td>36%</td>
<td>45%</td>
</tr>
<tr>
<td>Create new business models in partnership with cross-functional CXOs</td>
<td>34%</td>
<td>45%</td>
</tr>
</tbody>
</table>

Base: 50 banking sector CIOs
Source: Cognizant Research Center
Figure 4

Imperative #1: Transform the Customer Experience

The age of the customer is officially here, thanks primarily to market entrants from outside the traditional banking industry that spurred a virtual tsunami of digital initiatives.

These new competitors broke the mold by enlightening customers to the art of the possible, making banking more convenient and productive by adding mobile Web and apps to the mix. Using digital technologies and sensibilities, they enabled more relevant and meaningful products and services by distilling and analyzing transactional and interactional data to deliver uniquely curated experiences. As such, these innovative disruptors have challenged traditional banks to up their games, if not reevaluate their entire existence.
As banks invest in digitization to transform the customer experience, the big question is whether they are succeeding, and whether the investment is paying off. The answer, according to our respondents, is a strong “yes.”

For example, we worked with a U.S.-based multinational financial services organization that wanted to create a personalized Web-based experience to help customers select products optimized to their needs and spending habits. The bank’s IT organization worked with us to craft and develop user experiences based on extensive research and validation, resulting in a 7% increase in application completion, a 20% reduction in customer drop-off, a 30% increase in usability and an estimated 8% to 10% increase in credit applications per year.

Imperative #2: Multichannel Integration

The digital agenda includes numerous strategies for increasing market share and winning new customer segments. However, our survey confirms that most banks are not yet taking an integrated, multichannel approach despite making major investments in digital services.

Most respondents (38%) are providing some digital services to customers, with limited channel integration. Only 25% are providing advanced services, such as a mobile wallet, with a high degree of channel integration, and just 19% are providing advanced services with full, multichannel integration.

About 38% of respondents said their institutions have integrated online and mobile banking channels, and roughly 30% have integrated social and mobile channels. A smaller number (23%) have integrated their online, social and mobile channels.

We see successful digital banking CIOs carving out the following initiatives for multichannel integration:

- **Sales and service integration** across digital (mobile, online) and traditional (branch, contact center and ATM) channels.
- **Standardization of business processes** across channels that drive easy integration of underlying technology and data.
- **Use of common data and analytics** to map every customer, capture attitude and choices, personalize, sell and manage relationship.
- **Use of a flexible technology architecture** (e.g., one built around Web services) to accommodate fast technological change and add disruptive business capabilities where needed.
Customer Centricity: A Digital CIO Mandate

CIOs across the banking world are feeling extreme pressure to provide new digital services, such as personalized mobile banking, secure online payment services and banking solutions that appear to read customers’ minds by anticipating their needs (see Figure 5). They need to do this while transforming antiquated legacy IT architectures and systems into communicable, connected interfaces that can inform emerging digital systems of engagement and intelligence.

To achieve this, CIOs must partner with financial technology startups to:

• Integrate personalized capabilities into mainstream banking solutions.
• Redefine the role of branches from transaction centers to concept stores offering end-to-end services.
• Develop a customer experience platform that enables on-demand self-service.
• Utilize predictive analytics to better anticipate customer demands.
• Revitalize their legacy IT architecture to allow for customer-driven development and growth.

As part of its new customer acquisition strategy, a U.S.-based retail bank engaged us to build a platform that provides a global view of multichannel customer behavior in order to deliver customized content based on user behavior. The target platform enabled a consistent view across channels, such as mobile, tablets, portals and the Web. It also enabled field agents to define and leverage information when offline.

The platform leverages a common repository for all campaign and lead information. The initiative increased lead conversion by more than 100% when piloted and significantly enhanced customer engagement as a result of personalized campaigns that delivered an appreciable boost in incremental sales. As a next step, the bank is rolling out the platform across the enterprise.

Digital Customer Experience Needs, Challenges & Imperatives

Data Insights

<table>
<thead>
<tr>
<th>DRIVERS</th>
<th>CHALLENGES FACED</th>
<th>CIO IMPERATIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment innovations by non-bank competitors</td>
<td>The rise of direct-pay services via phone, mobile app, etc. has enhanced customer experience and opened the flood gates for competitors to attract bank customers.</td>
<td>Partner with startups and financial-technology players to integrate innovative options with mainstream banking solutions (e.g., polymorphic payments).</td>
</tr>
<tr>
<td>Growth of cashless, mobile and online transactions</td>
<td>The value of assets such as ATMs and branches, as well as the proximity of customers to branches, has decreased and is no longer a differentiator.</td>
<td>Convert branches to concept stores to sell immersive end-to-end services.</td>
</tr>
<tr>
<td>The need to attract, retain millennial customers</td>
<td>Millennials now choose banks based on availability, level of multi-channel banking services, reasonable fees and loyalty rewards programs.</td>
<td>Develop a customer experience platform as a digital jumpstation to enable on-demand customer self-service and customer-centered journeys.</td>
</tr>
<tr>
<td>The need to convert customer trust to sales</td>
<td>Banks are losing to financial-technology service providers on advisory and other high-margin financial services, such as brokerage, auto loans, mortgages, etc.</td>
<td>Use predictive analytics to proactively drive advice and value through targeted use of consumer preference and transaction data.</td>
</tr>
<tr>
<td>Rise of personalized banking solutions</td>
<td>Monetization of data insights is allowing new entrants (i.e., startups) to provide value-added services that reflect customers’ distinct interests, needs and patterns.</td>
<td>Revitalize the legacy IT architecture to accommodate customer centricty-driven development and growth.</td>
</tr>
<tr>
<td>Legacy banking technology</td>
<td>Traditional banks have outdated technology and complex interwoven processes built over years, making it difficult to quickly respond to market changes and customer needs.</td>
<td></td>
</tr>
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</table>
Impressive #3: Digitize Middle- and Back-Office Functions

Digitizing middle- and back-office functions is moving forward even more slowly than digital channel integration. Only 38% of CIOs said their banks are seriously considering the digitization of middle-office functions, and about the same number (36%) said they are considering a transformational solution for the back office, such as their core banking platform.

Roughly 25% said they are looking at more tactical solutions for the back office, and another 23% are considering strategic solutions. Notably, only 12% are taking a comprehensive approach and considering all of these solutions. This is clearly a major opportunity for the banking industry, and CIOs can catalyze these efforts by introducing cost-effective automation processes, flexible architectures and low-cost micro-services (i.e., online bill payment setup, loan applications, money transfers between accounts) that can be scaled up (see Figure 6).

In our experience, CIOs are utilizing the following approaches to digitize middle- and back-office functions:

- **Investing in emerging tools and technologies** (e.g., intelligent process automation, robotics, cloud, new-age business process management suites) to improve efficiency and the speed of digitization.
- **Establishing a modular solution architecture and operating model** (processes, staffing, organizational structures) that enable faster assembly and development of middle-office/back-office capabilities, aligned with digital-driven change.
- **Leveraging data as a key resource to fix process bottlenecks**, plan everyday operations and organize middle- and back-office services that align with front-end digital services.
- **Providing open APIs as strategic tools to expand the business value chain** by creating new capabilities built on integrated customer, information services provider and channel partner data. An example is a retail bank offering access to the logic that controls account summary, branch locator and transaction history functionality.

Impressive #4: Digital Tools for Customer-facing Personnel

Because banks recognize the importance of the human touch in customer service, many are working to reimagine their branches and place digital tools in the hands of their customer-facing employees. Approximately 45% of CIOs told us this was a high priority (see Figure 7, next page).

Although customers prefer digital banking to physical branches for many transactions, they are still not ready to fully entrust their financial well-being to self-serve digital channels. To satisfy demand for both digital and human-touch experiences, banks are developing digital tools and adaptive algorithms to simplify the banking process while also delivering personalized, expert advice and direction. This initiative is best led by the CIO, in collaboration with the CMO.
For example, Barclays reengineered two of its digital channels to enable customers to call the bank directly from its mobile application. As part of this initiative, the bank also introduced instant lending to customers on mobile devices.

Increased autonomy and independence is a banking consumer priority, but not when customers encounter fraudulent account charges or must make decisions about their financial future. In these instances, customers demand immediate and personalized service. To meet this demand, banks must develop and innovate digital tools for customer-facing employees to quickly and comprehensively resolve customer issues or offer personalized, informed and relevant financial guidance. This is another job tailor-made for the CIO organization.

CIOs should also consider digital initiatives that reinforce and extend customer relationships. Wells Fargo, for example, recently introduced an advanced form of video chat, enabling customers to choose the banker they would like to interact with, based on previous interactions and relationships. Since implementing this proactive chat service, 92% of customers who chat are highly satisfied, and home equity conversions via the website rose 30% to 40%.

Looking Forward

Digitally-minded CIOs are well positioned to advance the transformational agenda in banking. But there is work to do, particularly around integrating legacy and modern digital systems and, in some cases, making new investments focused on expanding share of mind and wallet. CIOs need to ensure their institutions can capture, analyze and map every bit of customer data – including both explicit and implicit actions and preferences – and offer personalized products and services. They also need to ensure APIs are positioned as strategic tools to expand the business value chain and integrate data and services made available to customers, providers and channel partners.

It is critical to drive cultural change and nurture a mindset in which digital is the norm, CIOs report. For instance, the technology division at one of our top clients recently adopted a casual dress code for employees working primarily on its digital projects – a radical departure from the traditionally conservative banking work style. At lunchtime, staff is encouraged to use the online ordering system in the company cafeteria, simply to promote digital habits. The message is clear: Digital is here to stay, and we are fully committed to it.

Banks also need to continue investing in technology, and rethinking the IT budget is an important starting point. Following years of negligible IT budget growth and the discernable shift of technology dollars to other functional areas, such as the CMO organization, the CIO can play a critical role by revitalizing legacy architectures and

Continued Importance of the Human Touch in Digital Banking

Respondents were asked how important human interaction was when it comes to delivering banking services.

<table>
<thead>
<tr>
<th>Importance Level</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Very Important</td>
<td>51%</td>
</tr>
<tr>
<td>Somewhat Important</td>
<td>45%</td>
</tr>
<tr>
<td>Not Important</td>
<td>4%</td>
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Base: 50 banking sector CIOs
Source: Cognizant Research Center
Figure 7
CIOs who remake themselves and their organizations into digital beings will be positioned to seize the high ground, particularly as digital proficiency continues to separate winners from also-rans in an increasingly congested and competitive retail banking market.

enabling systems of record to work seamlessly with systems of engagement and intelligence. Doing so will drive more profitable growth, an important consideration given the ongoing profit squeeze and unrelenting push from nonbanking entities to grab customers’ hearts, minds and pocketbooks. CIOs also need to provide investment guidance for emerging tools and technologies, such as intelligent process automation and cloud services to improve efficiency and speed.

In the spirit of innovation, banks should experiment with concept stores and customer experience platforms to enable on-demand, customer-centered journeys and self-service. Given their visibility across the front, middle and back office, CIOs can play a key role in working across silos to create a single version of the truth for all constituents – from bank associates and customers through partners. CIOs must also take the initiative to work more closely with startups and financial tech players to integrate innovative options into mainstream banking solutions.

CIOs who remake themselves and their organizations into digital beings will be positioned to seize the high ground, particularly as digital proficiency continues to separate winners from also-rans in an increasingly congested and competitive retail banking market.

Methodology

Our study was fielded in November 2015 to 200 North American CIOs and those with similar IT leadership job titles across the banking, P&C insurance, healthcare and life sciences industries. This white paper focuses exclusively on the responses provided by 50 CIOs from the banking industry.

The questionnaire was instrumented by the Cognizant Research Center (CRC) and conducted via phone by our partner E2E Research. The interviews allowed time for open discussion, and verbatim comments were recorded with respondent approval. The findings (split equally across the aforementioned industries) were jointly analyzed by CRC and Cognizant Business Consulting.
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Footnotes

1 Blockchain is a data structure that makes it possible to create a digital ledger of transactions and share it among a distributed network participants. Participants can manipulate the ledger in a secure way without the need for a central authority. For more insight, read “CIO Explainer: What is Blockchain,” http://blogs.wsj.com/cio/2016/02/02/cio-explainer-what-is-blockchain/.

2 This initiative was honored by the UK's “FStech” awards program for “Best Use of Technology in Customer Service” and “Best Use of Mobile,” based on the traction garnered by the initiative with millennial customers. For more information, see the awards section of Barclay’s website, http://www.barclays.co.uk/Awards/Awardwinningbanking/Pl242628894224.


Additional Reading

For a cross-industry look at the CIO's transformative role in the digital economy, please read our white paper “Being Digital: How and Why CIOs Are Reinventing Themselves for a New Age.”
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