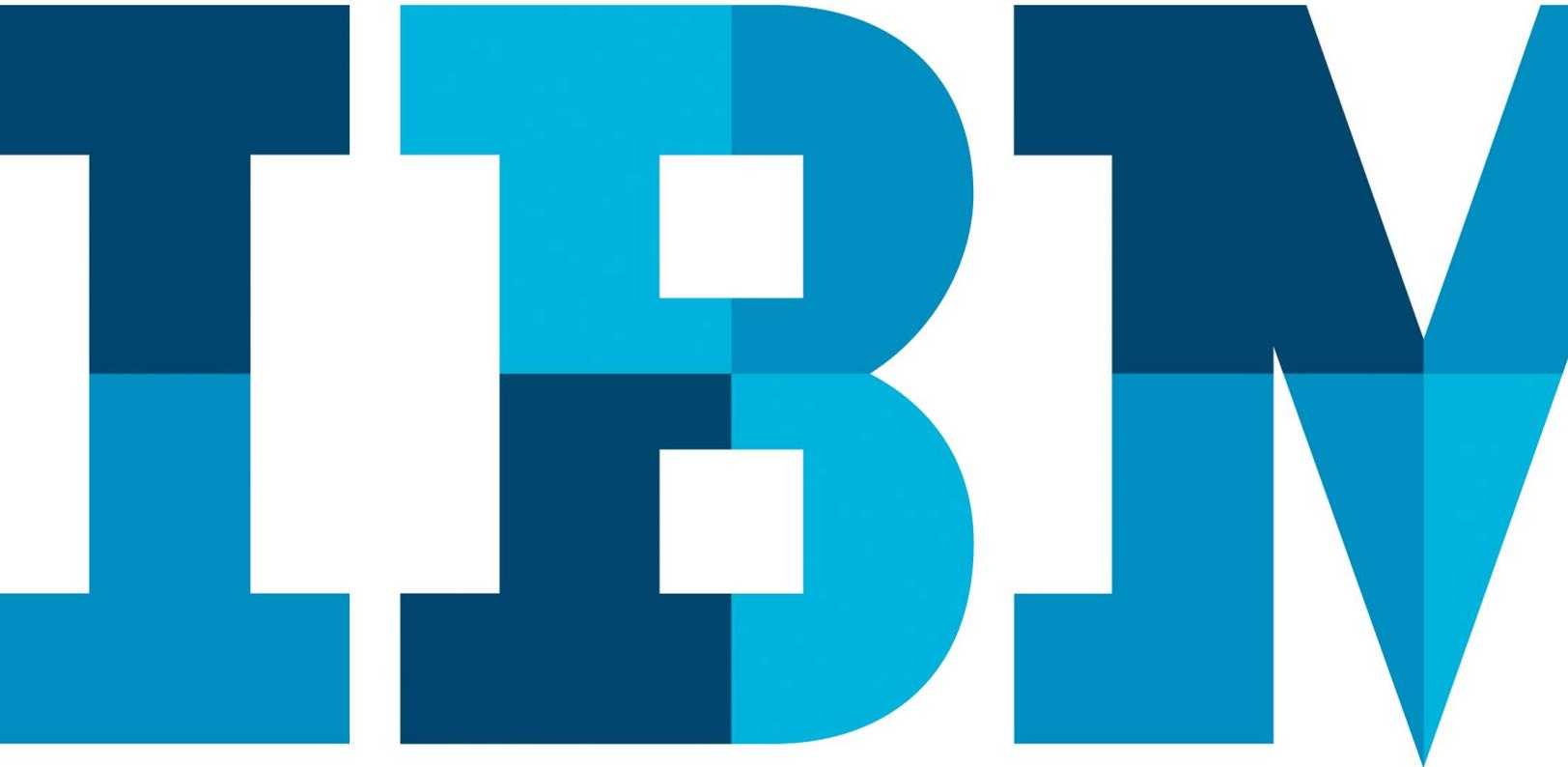


# Rethinking the business of banking

*Transforming financial services from physical to digital to cognitive*



## Introduction

The digital revolution is playing an increasingly larger and more dominant role in how we live, work, conduct business and relate to others. Four primary drivers are acting as enablers: big data, expansive mobility, social media and cloud computing. The convergence of these forces is creating new businesses and reshaping existing ones that must all adapt to ever-changing customer behaviors. It's also helping a wide variety of industries create rapid innovation and new opportunities for monetization of data.

Traditional banks are facing fierce competition from digital banks and fintechs that are providing new, extended or enhanced financial products and services, such as efficient online payment services or peer-to-peer lending sites. These emerging entrants into the marketplace are often more agile and innovative than traditional banks, have a deep knowledge of how customers think and might even have established a good reputation. In addition, many do not face the growing regulatory pressures that traditional banks must cope with.

Successfully competing against these entities—whether long established competitors, digital giants or born in the cloud startups—requires immediate and decisive actions to meet an evolving set of challenges. It also necessitates new thinking, new business models, and more rapid and effective application of evolving digital technologies. This paper explores some of the initiatives financial institutions must embrace to successfully adapt and transform into a thriving, profitable next-generation bank.

## Improving client engagement and digital marketing efforts

How close are you to your customers? Your success depends on taking full advantage of all the customer data available to you and acting on it sooner, not later. It also requires evolving your bank's business model to employ an "engage first and sell later"

way of thinking. Better understanding your customer and effectively marketing the content, applications and services they want most can help you provide a superior customer experience, strengthen customer relationships and increase per-customer profitability.

### Be present in your customers' lives

Improving your digital relationship with customers is not itself the goal; it is instead your primary vehicle for getting closer to them. Being present in your customers' lives requires that you view them not as simply amalgamated data and transactions, but that you understand the total individual, the persona behind the customer.

The "persona" can be defined as the personality, emotions, culture, socio-economics and relationships of your customers and non-customers. This definition also reflects their motivations, needs, preferences and habits. You can become better acquainted with the personas of both your customers and prospective customers by understanding how they interact both physically and digitally with their environments, other people and organizations.

Understanding the persona requires being present in your customers' lives. It is the foundation for remaining relevant to your customers. And it should drive the products and services you develop, as well as the business relationships you cultivate.

*A digital customer relationship is not the end goal; it's a vehicle for getting closer.*

### Be relevant to your customers

If you are present in your customers' everyday lives and activities and offering them added value, there is a greater likelihood your organization will remain relevant to their needs and wants. In turn, remaining relevant in customers' lives means they will allow you to continue to be present.

The circle is continuous: If you remain relevant, you can be present and if you are present, you must be relevant. This cycle of presence and relevance should not be focused on a direct return in the short term. Instead, it is another digital building block to strengthen your relationship and improve customer loyalty. The resulting connection will offer opportunities for monetization later.

Being relevant means helping solve your customers' everyday problems, simplifying their lives, and complementing and enriching their physical interactions. Customers aren't necessarily seeking financial services at the present moment when they engage with you. They are simply looking for someone to deliver content, services or apps that are focused on their specific lifestyle, interests, preferences and motivations. For your bank to be relevant, you must find these new ways to deliver value to customers. Even when there is no immediate financial need to address and little or no direct financial benefit for the bank, it's important to remain relevant.

*Remaining relevant requires being present.  
And being present is allowed only if you are relevant.*

As we will discuss later, your organization is not always required to develop these customer-focused solutions. There are digital providers with both the expertise and incentive to develop them; your goal is to ensure that your organization is the gatekeeper of your customer relationships. Becoming a part of ecosystems of digital providers can enrich your bank's relationship with customers, both by providing services for others to build on and building on outside services yourself.

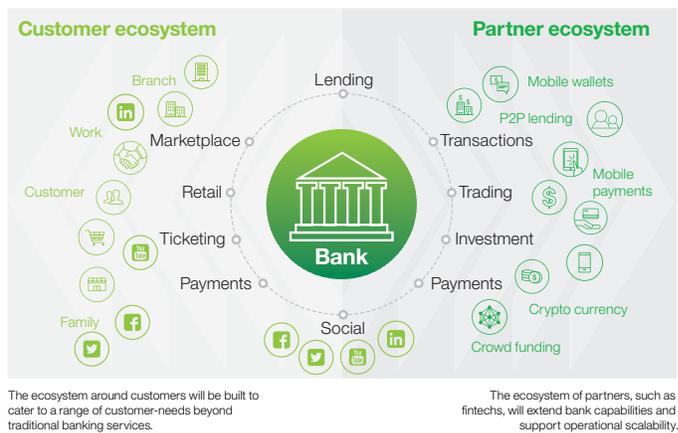


Figure 1. Banks are at the center of many emerging ecosystems. Source: IBM Institute for Business Value.

### Listening to and understanding personas

By maintaining a presence in your customers' lives with relevant content, you can then listen to their personas on a continuing basis. Social monitoring provides more touchpoints to capture interactions, gain deeper visibility into their experiences and collect more data on the way customers interact when using their preferred device. Listening is especially critical in mobile interactions where location and context can give you deeper, richer and more actionable information about your customers' behavior.

When this expanded customer data becomes available, you will need an array of dedicated digital tools and finely tuned processes to analyze it. By identifying strategic data patterns, you can make better decisions on the best ways to build customer relationships digitally. Advanced solutions, such as predictive analytics and cognitive computing, can give you fresh insights into customer actions across multiple channels.

## *New cognitive computing capabilities can enhance, scale and accelerate your bank's human expertise.*

The science of analytics has made significant advances in recent years and is now valuable for much more than simply its descriptive capabilities. With the availability of so much data from so many different touchpoints, predictive analytics can help your bank anticipate needs and guide your decision making. It can deliver prescriptive actions that offer high business value to your bank in the near term.

Newly refined and business-focused cognitive computing capabilities can enhance, scale and accelerate the human expertise within your bank. Cognitive businesses can evaluate and learn from the massive quantities of unstructured data available. Cognitive computing applications understand natural language and deliver personalized intelligent answers by tapping a vast library of knowledge derived from both structured and unstructured data. Applying intelligent machine learning and reasoning powers helps your bank gain finely tuned persona-specific knowledge that can drive relevant automated actions for enhanced customer engagement.

### **Taking next-best actions using persona insights**

As your bank continues to become more present and more relevant, you will have more opportunities to listen. The intelligence you gather will help you develop a deeper, more intimate knowledge of your customers. By combining next-generation tools, such as advanced analytics, cognitive computing and automated digital marketing solutions, you can transform ordinary marketing into pinpoint accurate delivery of hyper-personalized customer offers.

Using this process can help you create marketing messages that customers regard as relevant content, allowing you to maintain your presence in their lives and improve your engagement opportunities. Customers can explore relevant contextualized offers that are meaningful for them anywhere and anytime on their preferred device. Data-driven, omni-channel marketing can increase both the frequency and length of interactions, which are exactly what is needed to increase revenue.

## **Applying digital innovations to improve efficiency**

Every bank has a history of attempts at improving efficiency through cost cutting, process optimization, outsourcing non-core activities and many other tactics. While these measures may have been satisfactory in earlier operating models, today's digital-driven transaction processing system requires fresh thinking. New improvements in business processes, better ways to cut costs and higher productivity from front-line banking personnel are all measures that will help. Today, your bank's plan should include improving agility, scalability and flexibility in every phase of transaction processing. Deploying new, more powerful digital solutions and operating models can drive your bank's efficiency to higher, more profitable levels.

Cloud computing can provide the agility banks need to improve efficiency. It offers consumption-based, flexible, scalable environments with a focus on security that can give your bank new opportunities to become more efficient. Additionally, the cloud facilitates various delivery alternatives, such as infrastructure as a service (IaaS), platform as a service (PaaS), software as a service (SaaS) and business process as a service (BPaaS). Maximizing cloud capabilities can even allow your bank to deliver banking as a service (BaaS). By growing the total volume of transactions you process, your bank can both improve efficiency and realize new revenue streams for the future.

### **Banks will be both suppliers and consumers in new ecosystems**

For the successful next-generation bank, participation will be required in many different ecosystems where you may both sell and consume new services. These ecosystems are often described as the application programming interface (API) economy. APIs give software developers predefined building blocks that can act as technology glue for integrating applications, data and business processes. The resulting applications can help connect your bank with customers, partners and employees. While participation means you will be relying less on the traditional bank-owned end-to-end value chain, these collaborative relationships can offer exciting and profitable new revenue opportunities for the future.

### *Banks will both provide and consume digital services and utilities.*

As mentioned earlier in the section on building customer relationships, these ecosystems, composed of other interested digital partners, can supply you with new resources that can be incorporated into bank-released applications and services. Likewise, these ecosystems give you access to the work of others who are developing apps or services that could include a banking module developed by you. Your bank can supply financial services components to these companies that are developing broader-interest services even though the apps themselves may not be “banking centric.” But this type of non-banking exposure is exactly what could not only drive greater loyalty from current customers but also give your bank innovative avenues to discover and acquire new customers.

Success in these ecosystems will require a bold new attitude for banks, one with room for new definitions and implementations of the end-to-end product or service lifecycle. The extremely demanding turnaround times of these new business models require a commitment to proficiency in new ways of working

best defined by the agile method. To build agility into your bank’s operations, you will need to adopt advanced new ways of thinking, including design thinking, agile methodologies and an emphasis on development and operations (DevOps).

Design thinking is a different way of approaching problems—one that is focused on the desired goal rather than how to solve a specific problem. The agile method is also the foundation of a DevOps approach that can lead to faster response, greater innovation and higher efficiency for development and operations teams. Adopting these transformative behaviors, methodologies and techniques as your bank’s new normal can help you in several ways. You will be able to better understand problems, develop solutions more quickly, and continually refine and rerelease apps or services as customers’ needs and wants change.

### **Banks will encounter unique challenges to transformation**

Transforming your organization to engage with tomorrow’s customers and become an agile, innovative and efficient bank will require new thinking in several different areas.

#### **Adapting to new challenges: Platforms**

To become a next-generation bank, a new architectural platform is required—one that leverages innovative technologies and integrates business, IT and operations. Today, these areas are often siloed and not in contact with each other. This new platform must be agile by nature, data driven and incorporate facilities, such as the physical plant, to rapidly create new services based on other currently offered ones.

New business models will be necessary, such as the API economy previously mentioned. As these platforms grow within the marketplace, your bank can benefit by obtaining data with more context and more subtleties, helping you remain relevant and appealing to customers. It’s an ideal way to build a deeper, richer understanding of your customers and gives you the data and capabilities you need to truly personalize every engagement.

Participation in these marketplaces, where bundles of services are provided by different players, will require your bank to work differently. You will need to develop your own platforms or implement strong integration capabilities in this new architecture to get your share of the digital advances created here. These digital advances can help you capitalize on customer relationships and monetize core assets, services and products.

#### Adapting to new challenges: Cloud

Cloud can be a key enabler for agility, flexibility, scalability and consumer-based models. It is also crucial to support the new ecosystems where a vast number of players and clients have access to and operate with data, applications and services. Hybrid cloud, an orchestrated mix of on-premises private cloud and public cloud services, is the current preferred environment. Depending on process, data nature, security and regulatory requirements, the platform owner can evaluate, coordinate and control internal and external private clouds, as well as public cloud environments.

#### Adapting to new challenges: Data

Much of the myriad data coming from digital interactions is unstructured, in natural language, in motion and available in real time. Effectively using such data requires advanced new data-driven and analytics-enabled architectures and platforms. Rather than data flowing through the processing systems, the processing systems access a unique version of the data. Deciphering this data requires integrated in-motion and at-rest approaches, as well as an overall improvement in data quality, traceability and accessibility.

The ever-increasing volume of data must also be addressed. Unraveling this amount of data will require cost-efficient enhanced data transformation, enrichment, curation, storage and discovery ecosystems, along with data warehouses capable of managing big data through implementation of in-memory processing capabilities.

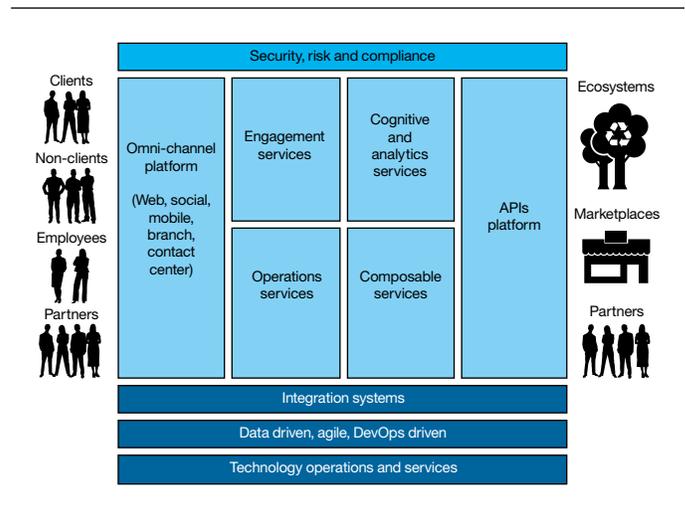


Figure 2. A next-generation bank will be dependent on a wide range of tools, technologies and interactions.

### *Wider data access for more business users improves self-service capabilities.*

Data access democratization will be necessary to give more middle-tier business users access to self-service capabilities and sandbox environments—each user’s own insulated work area for conducting “what if” scenarios. Democratization of data will allow these users to perform real-time analytic processes by themselves without involving the IT department. These actions will, in turn, allow a seamless implementation of advanced business intelligence and analytic capabilities based on big data, natural language processing and cognitive computing solutions.

### Adapting to new challenges: Cognitive computing

Unstructured data, such as conversations, emails, social media exchanges and the like, accounts for nearly 80 percent of the information we create every day, making it virtually invisible to current computing technology.<sup>1</sup> In order to take advantage of this new natural resource of data, banks will need to turn to cognitive computing.

Cognitive systems can ingest large quantities of unstructured data, learn from it and apply reasoning to it. Cognitive systems are able to put content into context and provide confidence-weighted intelligent responses for next best actions. In a sense, cognitive computing gives products, services and processes the power to think. And it is exactly this kind of resource your bank will need moving forward to gain and maintain a competitive advantage.

### Adapting to new challenges: Security

While collaborative external ecosystems can offer significant new benefits for your bank, they can also bring new cyberthreats that require more pervasive, dynamic and sophisticated security policies and approaches. In addition, the rise in computing threats in general, along with new security pressures from regulators, are forcing banks to reexamine security technology, services, protocols and operations.

A prime tool for helping improve bank security is analytics. It can be applied to all phases of both customer relationship marketing and transaction banking to monitor and safeguard the entire cycle of prevention, detection and response. This heightened focus on security will be required to help protect your bank's most valuable assets during and after your transformation.

## Conclusion

How you choose to adapt to help ensure a successful future for your organization is in your hands. Unquestionably, you are challenged with ever-mounting competitive and transformative

forces that require your organization to rethink the proper path or paths to success. Some banks will choose to put a renewed emphasis on customer engagement and marketing to leverage customer relationships—your greatest differentiator from digital competitors. For other organizations, a focus on streamlining processes and procedures, while deploying digital innovations, will drive that bank's efforts to become an agile, efficient and profitable transaction banking service. And for many banks, a combination of the two strategies will help them build customer relationships while they work to transform, redefine and reimagine their core banking engine to power more efficient transaction processing.

## How IBM can help

As a global organization with a long history of helping banks navigate ongoing change and complexity, IBM is uniquely qualified to offer guidance and solutions to help you navigate the turbulent times ahead. IBM can help you understand and respond to your customers while capturing new business opportunities like never before.

IBM has pioneered a substantial portfolio of proven offerings designed to simplify, accelerate and sustain your bank's transformation efforts. Whether your needs include digital capabilities assessments, enhanced client-centric strategies, new social marketing proficiencies, API management enablers, end-to-end cloud resources or the power of cognitive computing built on the IBM® Watson™ platform, you can rely on IBM.

Working with IBM means more than simply keeping up with the latest innovations in business and technology. It's an opportunity for your organization to work alongside experts who are transforming industries and professions with data, remaking IT for the era of cloud, reimagining work to take advantage of mobile and social technologies, and helping you create a new infrastructure for a new era.

## For more information

To learn more about the benefits and drivers of digital transformation in banking, and how to redefine the customer experience, please contact your IBM representative or IBM Business Partner, or visit the following website: [ibm.com/industries/banking/the-cognitive-bank](http://ibm.com/industries/banking/the-cognitive-bank)

For research results on disruption, transformation and becoming a next-generation bank, please see the “Banking redefined” study from the IBM Institute for Business Value at: [ibm.com/services/us/gbs/thoughtleadership/bankingredefined/](http://ibm.com/services/us/gbs/thoughtleadership/bankingredefined/)

## About the authors

Enrique Castro is an IBM Global Business Services Associate Partner who combines his role as business development executive with thought leadership activities focused on retail and corporate clients. Before joining IBM, he was branch CIO at a global bank for 10 years and was responsible for overseeing a variety of large front-to-back transformational projects.

Sven Loeschenkohl is the IBM Global Business Services Europe Vice President for Banking and Financial Markets. As an expert in financial services and business strategy, he has over 15 years of experience in supporting new businesses and redesigning existing operations and management systems. He holds a PhD in Economics from the University of Hamburg, Germany.



---

© Copyright IBM Corporation 2016

IBM Global Business Services  
Route 100  
Somers, NY 10589

Produced in the United States of America  
June 2016

IBM, the IBM logo, ibm.com, and IBM Watson are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at “Copyright and trademark information” at [ibm.com/legal/copytrade.shtml](http://ibm.com/legal/copytrade.shtml)

This document is current as of the initial date of publication and may be changed by IBM at any time. Not all offerings are available in every country in which IBM operates.

THE INFORMATION IN THIS DOCUMENT IS PROVIDED “AS IS” WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.

<sup>1</sup> “Demystifying Big Data: Decoding The Big Data Commission Report.” Accessed December 2015. [ibm.com/events/wwe/grp/grp004.nsf/vLookupPDFs/Tim Paydos' Presentation/\\$file/Tim Paydos' Presentation.pdf](http://ibm.com/events/wwe/grp/grp004.nsf/vLookupPDFs/Tim Paydos' Presentation/$file/Tim Paydos' Presentation.pdf)



Please Recycle

---