With 1 billion digital natives joining the labor force in the next seven years, 70 billion connected computing devices by 2020 and the amount of data doubling every 18 months, digital is the new era of business across all industries. It is a stepping stone in the evolution of the modern world, made possible by the exponential growth in the use of new technologies. The digital era requires a new way of thinking about how to compete, which influences the way products, services, campaigns and operating models are designed and delivered.

The banking industry is no exception with 35 percent of banking revenue put at risk due to the digital revolution. This article reviews the top 10 digital initiatives that banks have undertaken in recent years with various levels of success, highlighting their related benefits and the lessons learned, based on case studies observed on the market.
Operational wise, banks are forced to address front-to-back simplification and transformation due to aging infrastructure and servers, uncompetitive cost structures, and increasing pricing pressure in the transaction space. As a consequence, huge investments have already been made by the banks as they seek to either become a digital leader, or try to catch up with their peers and competitors. Such efforts have met with varying levels of success. Going digital would allow banks to deliver an end-to-end and tailored customer experience across all channels, focusing on the habits and expectations of new generations. Furthermore, they would be able to retain and even expand their customer base, preventing customers from switching to non-banking competitors. Finally, banks could also lower their operational costs through the digitization of their repetitive and time-consuming processes, i.e., account opening or loan origination, thanks to the increased support of front-end activity by digital channels.

Our studies demonstrate that the banking and securities sector will lead digital market spending with relative market size growing from US$5 billion to US$8.8 billion by 2020 at a worldwide level. Like many other industries, the banking sector is facing a changing environment with digital disruptions taking place in several spheres.

- With regards to customers, their expectations of digital experiences have already been raised by non-banking players. Personalized, integrated services and holistic solutions for diverse financial needs are now expected. Next-generation customers also expect banking services to be available when and where they want them.

- Regarding the competition landscape, non-traditional players and startups (FinTech) are picking off high-value areas of the value chain where banks have ignored opportunities, or white spaces that are not important enough to current bank operations or not economically relevant with their legacy operating model.

Becoming a successful digital organization requires more than a one-time investment. It requires ongoing evolution based on accurate and timely feedback from internal and external customers, which will only become possible if the organizational model is agile enough to cope with the pace of change and increased client interaction.

Today, digital is the common denominator for both challenges and opportunities faced by banks, creating a sink-or-swim situation for traditional players. Banks that forgo typical bespoke, iterative approaches and invest in integrated and forward-thinking transformation are achieving success in the digital era. In this context, many digital initiatives have been launched in the world of banking over the past few years.
“Technology is changing how companies are organized and run across all industries, and ours is not different”

Brian Moynihan, CEO of Bank of America

Hereafter, we describe each initiative’s connection with current market trends, and provide insight on the benefits and the lessons learned, as well as case studies observed from the market.

1. Digital strategy: adopting a digital strategy in line with your business strategy
2. Digital customer segmentation: adapting customer segmentation drivers to new digital habits
3. Customer lifecycle journey: removing friction from the customer journey
4. Digital operating model: digital strategy driving the adoption of a digital operating model
5. Agile transformation: starting with digital as a project and ending with digital as a core value
6. Digitization of processes: transitioning from manual and paper-based processes to digital processes
7. Mobile and omni-channel: providing a seamless user experience across all digital channels
8. Cyber security: transforming the cyber security threats into opportunities
10. Analytics: shifting from a “data-capturing” to a “data-leveraging” approach
Digital strategy is the foundation that underpins the future state of the organization when it reaches digital maturity.

**1. Adopting a digital strategy in line with your business strategy**

Today, mobile devices provide unprecedented access to information, products and services. Businesses need to create a seamless experience and a consistent customer journey, projecting their brand clearly across the many touch points, channels, and devices their customers use. Digital strategy helps banks define a bold vision for their entire digital journey. It is the gateway that leads to all other digital initiatives. They need to reimagine how profits are made, rethink how relationships are created and managed, reshape how they operate, and rewire the competitive fabric of the entire banking industry. Such a digital strategy should be considered alongside a more agile operating model and optimized banking processes to allow banks to become more intuitive enterprises.

By participating in ideation and prioritization workshops, organizations create a backlog of digital initiatives that can be tailored to align with their corporate strategic objectives. An enterprise-wide digital strategy helps companies to become more effective in acquiring new customers and drives greater loyalty to retain their existing customer base. Furthermore, by combining a business-centric lens with a customer-centric viewpoint, a modern digital strategy can increase product penetration and customer satisfaction, while maintaining or improving business performance.

Digital strategy is the foundation that underpins the future state of the organization when it reaches digital maturity. Over time, clear differences have been identified between banks at the early stage of their digital maturity and those that are already mature. There are visible and less visible aspects of this maturity, cutting-edge technology being one of the most visible elements.

When trying to adopt new technology, the main reason for failure usually lies in the fact that organizations have not changed the culture and mindset of their employees. Leading digital banks not only have a clear and coherent digital strategy but they are also excelling at communicating it, often dictated by a single person or a limited number of people who demonstrate digital fluency to their colleagues. Banks have also different objectives in terms of strategy depending on their level of maturity. Less mature organizations are using digital to improve efficiency and
customer experience, while developed banks focus on transforming their business to stay at the cutting edge of the competition landscape, reflecting a vision beyond technologies. In terms of culture, digitally developed banks have a more risk-taking approach than their less mature peers. They are also in better shape to implement digital initiatives by leveraging the benefits from cross-departmental collaboration. Being comfortable with risk and a collaborative mindset are key factors behind innovation.

For an Australian bank, digital banking was at the center of the transformation agenda. It focused on a long-term digital strategy comprising channels, data, agility and FinTech. They created UBank, which is their digital-only offering aimed at customers who wish to deal exclusively online or via their mobile. In 2014, the bank invested in the development of API, a programming interface layer that exposes some of the bank’s functionalities and how certain services operate. The bank also launched an innovation hub created in the vein of start-up methodologies. In 2016, the bank announced a $50 million innovation fund to invest in start-ups.

Banks must understand that the opportunities offered by digital transformation are not embodied by the technology as such, but rather arise from the way banks are integrating new technologies to transform their business, their customer journey and how they map digital capabilities to their organization’s roadmap.

2. Adapting customer segmentation drivers to new digital habits

New generations (Y and Z) customers who grew up with the Internet expect an immersive, personalized and frictionless digital experience with banking products and services. According to the millennial disruption index, 53 percent of millennials think that their bank does not offer anything different from others and 33 percent believe they will not need a bank at all in five years’ time. Moreover, 73 percent would be more excited about a new financial service offered by Google, Amazon or Apple, rather than by their bank.

With increasing competitors’ brands and online-only offerings, including those offered by players from other industries, customers are looking to new alternatives and are expecting exceptional value-added services that go beyond core service offerings, breaking with previous industry standards. Failure to meet expectations is costly for banks, as some customers leave their traditional bank and look for more innovative players as a result of having lost trust in the big players.

Banks should already be segmenting customers to ensure targeted services and content depending on the client’s digital habits, thus providing a customizable online service, which will propel improvements in the customer experience. Improved segmentation of their clients leads banks to create experiences that truly differentiate them in the marketplace, resulting in improved cross-selling. They will be able to better adapt products and services to key customer segments and strengthen their customer retention with improved customer knowledge. Aside from this, operational efficiencies will also be optimized through alignment to the defined segments.

Since digital banking services are not exclusively used by Gen Y and Z customers, the usual segmentation based on behavior should prevail. A leading universal bank in Russia implemented a new customer segmentation strategy based on customer income. The focus was on high and middle income segments (affluent and mass-affluent) with tailor-made products and services with a dedicated financial advisor and personal relationship manager respectively. The bank learned that they should pay attention to customer retention instead of customer attraction and that their segmentation strategy should involve an omni-channel seamless experience with a focus on utilization. Finally, they identified remote access channels as essential tools if banks wish to become leaders within the most profitable customer segments.
3. Removing friction from the customer journey

Once banks have defined their target client segments and relevant products, they need to make sure the customer journey is consistent across the channels for all their services. This requires the entire business to be integrated to demonstrate value at each and every customer touchpoint, from the contact center to digital, mobile and social interactions, and throughout the customer lifecycle.

Growing competition, globalization and consumer empowerment have eroded the traditional product-based advantage, forcing companies to shift to a new battlefield: customer experience. Waiting until the customer walks into a branch and subscribes to a banking product or service is no longer a sustainable strategy. Given that customer expectations are changing rapidly, they now expect to be able to transact digitally on any device and for the experience to be joined up across all channels.

To deliver a seamless experience across touchpoints, banks should adopt an incremental process.

First, banks need to connect customer opportunities to business operations, and create a single view of customer activity and data. Creating this single view unlocks opportunities to improve the customer experience and align investments in technology and operations. Starting with customer ethnographic research, data and insights are collected and assessed to create the customer-business journey.

Secondly, as online banking penetration in advanced economies exceeds 50 percent and mobile banking approaches 30 percent, digital self-service continues to grow—and this trend is expected to continue over the coming years. Therefore, banks need to develop deep user/design experience and user interface skills. Responsive web design and an intuitive customer experience are key contributors to creating a compelling customer experience where all touchpoints are customized to a customer’s stage in the journey.

Finally, banks need to interact with their clients in the most appropriate manner at every touchpoint of the customer lifecycle journey experience. This is only possible through a comprehensive combination of analytics, marketing and design, encompassing all capabilities in line with the digital service design.

A European bank enabled a whole new digital customer experience in Denmark, Finland and Northern Ireland by executing their customer move to mobile, direct and omni-channels. In terms of lessons learned, they made “customer needs” the center of the solution, rather than basing their solution on the bank. They started by designing a mobile solution and then early-produced prototyping and mock-ups of the customer experience, before a project realization method was selected. Moreover, user involvement was conducted with real customers before and during development, but also after the solution was launched. Finally, they monitored and adjusted the solution in order to maximize the benefits generated for the bank, but most importantly the perceived value for customers.
“Less is more in the customer experience. Some banks will realize they can’t hit mobile users who log in 30 times a month with the same five product pitches and will offer content like The Onion, letting customers design their experience and perhaps share it with friends.”—

Tom Groenfeldt, writer for Forbes

4. Digital strategy drives the adoption of the digital operating model

Strategic elements are key at the start of the digital transformation journey, but it will only be successful if the related operating model is able to support them.

Given the speed at which digital is disrupting the market, traditional operating models that were previously used by banks are no longer appropriate. Depending on the current level of digital maturity and the specific targets in terms of organization, products, customers and markets, banks should select the most appropriate way to embrace the digital transformation journey. Indeed, not every operating model is suitable when considering the implementation of the bank’s digital strategy. Banks should identify and define the cost and prerequisites of adopting a given operating model. The new operating model should be the driver of digital projects, not the other way around.

It is expected that a customer-centric digital operating model will drive an increase in overall revenue by meeting customer needs in a more effective way. Aside from this, restructuring the operating model to deliver superior customer experiences affects pipeline conversion rates and reduces customer sensitivity to competitor pricing. Finally, it will reduce organizational waste by removing duplicated processes and thereby delivering market-leading customer experiences that can be repeated with speed and discipline.

Banks should consider their path toward digital transition success as a two-step process. After the definition and implementation of a specific digital strategy, they should evaluate the current level of digital maturity of their own structure. Once this state has been determined, banks will have two ways to execute their digital transition journey and these could be executed together. Firstly, banks could exploit their current capabilities and operating model to set up relevant digital initiatives that will spread across the organization. Secondly, they could globally shift to a more mature operating model in order to improve the implementation of major digital transformation projects with better agility.

In order to be among the leading digitals, players that have turned digital threats into opportunities, banks need to take their digital strategy to the next level. However, this should be done with an appropriate and sizeable digitally enabled organization. While improving their digital capabilities, banks must also consider the adoption of a new cultural organization, with small, cross-departmental teams working together through a test-and-learn approach and rapid iterations.

5. Starting with digital as a project and ending with digital as a core value to become agile

Given the difficulty of predicting the lasting impact of digital disruptions and capabilities, embarking on the digital transformation cannot be a one-stop journey; rather, it should be an incremental one. Banks need to shift their culture from the classic waterfall methodology to a more agile delivery approach. Based on the desired business value results for the transformation journey, digital transformation should be delivered within a solution-driven and test-and-learn approach.

The agile approach is based on iterative and incremental development cycles, where requirements and solutions evolve through collaboration between empowered teams, necessitating direct customer feedback. Each development cycle has design, development, testing, and learning tasks that end in a solution demonstration in which work is accepted and eventually released.

Using an incremental test-and-learn approach provides early access to the most valued features and allows banks to learn from continuous feedback. Depending on their level of maturity, banks should leverage proof of concepts and pilots to shorten the time-to-market of new digital products. This approach will provide early insights about the benefits and project pitfalls. The greatest benefit of agile is that it allows companies to instill an adaptive mindset and culture that enables the organization to be nimbler in response to shifts in technology or business requirements—accepting that these priorities can change as the solution evolves—and thereby refine their strategy step by step.
Banks should consider the development of online and mobile customer applications, products and services.

While banks are building organizational agility into their business to achieve transformation, they will also need to consider modifying their definition of success as they operate in the digital era. For instance, appropriate success metrics would be the focus on creating Return on Relationships (RoR) for both existing and potential relationships, instead of return on equity or investment.

In 2014, a Nordic bank launched a program that will enable the bank to develop a more personalized and convenient digital experience for its retail customers. Once the business goals were set, they decided to adopt an agile methodology and combined two existing delivery streams to create an agile team together with a short and iterative development cycle. They learned that empowerment is key to shift the mindset of people who were used to working with a waterfall methodology. Other key factors included cross-sectional collaboration for greater transparency and the strong support of the management team to work in the same ways as agile teams.
6. Transition from manual and paper-based processes to digital processes

The current business world is undergoing a dramatic transformation: customers, products and distribution channels are now fundamentally digital, requiring processes to turn digital as well. Banks have mainly been focusing on providing better customer experience so far, neglecting the digitization of their processes and operations. Many banks are still supported by legacy back-end systems built several decades ago, and consuming a major part of the IT budget today. These legacy systems have resulted in inefficient manual and paper-based processes, significantly affecting the customer experience.

Taking loan origination as an example, the average industry processing time for a loan application is between 5 and 15 days. Moreover, the existing manual process is vulnerable to error (and rework costs) and contains operational risk, e.g., theft of the original documents, as well as costs relating to the storage for hard copies, e.g., renting space for paper archives. Digitizing the process would significantly reduce credit approval times by eliminating unnecessary handoffs and simplifying the customer experience. It will enable faster and more efficient processing with a consistent front-to-back experience that leads to higher customer acquisition and retention. Furthermore, modernized credit systems using digital technologies, with updated back-office systems, can provide a real-time view of the bank’s capital and loan loss reserves at any given time, mitigating unnecessary credit risks.

Banks should consider the digitization of front-to-back office with technologies such as document and content management systems, business process management (BPM) and digital signature in the short and medium term, enabling an end-to-end digital experience to their customers. This will probably be a multi-year process as their legacy systems and IT platforms would need to be fully integrated to allow truly digital processes.

In 2013, a Dutch multinational bank launched a fully functional mobile bank with a comprehensive product range and a major simplification of processes to make banking easier. New customer account opening processes via mobile were possible in just five steps and resulted in an 11 percent increase in new client acquisition. Moreover, consumer loans from application to funds were received in two minutes based on pre-approved limits for existing customers. The bank’s Polish entity developed a similar mobile application that allowed customer to receive a consumer loan in minutes by leveraging advanced analytics.

7. Providing a seamless user experience across all digital channels

Changes in customer demographics and behaviors are increasing the importance of online, mobile and social media channels. In terms of channel preference, 75 percent of generation Y are using digital banking services while only 25 percent are using branches and the number is still decreasing. Financial organizations need to place greater importance on their end-to-end customer experience across all channels.

Among all of them, the mobile channel continues to be the greatest area for customer-focused innovation, and it is expected that it will account for 80 percent of the market by 2020. Apple Inc. launched their new mobile payments system, Apple Pay, announcing partnerships with payment companies and several major US banks, including Mastercard, Visa, American Express and JP Morgan. While Apple’s new release dominated mobile innovation news, other activity included mobile technology alliances between IBM and Monitise, as well as Westpac and Moven. Mobile technology continues to dominate innovation in the global banking industry.
Although mobile is the primary channel of next-generation customers, banks need to deliver a consistent digital solution built across all channels (mobile, online, social, call center and branch). This would provide customers with an integrated view of their finances and a compelling user experience, using digital to increase customer engagement with the bank’s services. By interacting with customers in locations and channels they prefer, customer satisfaction and retention can be increased and key customer interaction data can be collected. Banks must also keep track of customer interactions across the different channels to ensure that the next interaction starts where the last interaction ended, which is the essence of the omni-channel principle.

In September 2014, an Indian Bank launched four new mobile banking apps, to boost the adoption of digital channels and to expand their presence in India’s rural areas. The new apps consist in a banking store, where customers can view and manage all their mobile banking apps; Insta Banking, which is used to cut the paperwork done in branch by letting the customer do it via their mobile in advance; video banking, which lets customers video chat with the bank at any time of the day or night; and mPassbook, which helps customers view their savings and credit cards on their mobile.

8. Transforming cyber security threats into opportunities

The traditional parameterized architecture was perfectly adequate for an organization that simply wanted to operate inside its own controlled environment, with email to the outside world. Today, this type of organization has almost ceased to exist because of the digital transformation: we now see wider connectivity to support sharing of sensitive information over the Internet (e.g., cloud computing) and IT consumerization (e.g., Bring Your Own Device). While developing digital strategy, and online partnerships with business partners, customers and suppliers, organizations must carefully consider the new threats and risks posed by the digital transformation and its related technology. Assets that were once physically protected are now accessible online; customer channels are vulnerable to disruption. Personally identifiable information via mobile devices, facial recognition and biometric verification are the top strategies being tested by banks. A large British bank is implementing a heartbeat ID for online banking security. This revolutionary strategy in KYC is also being tested by several other global banks. By digitalizing their KYC and AML process, banks could vastly enhance security and trust, improve AML accuracy and transparency and also reduce the risk of errors in documentation and information storage.

Among examples of recent trends, biometric security adoption is increasing and diversifying in the banking industry.
For instance, Apple’s fingerprint technology, enabled through its iPhones and iPads, has been adopted by an Australian and a Turkish bank as a method of verification when entering their banking apps. New and more innovative methods of identification have included Barclays and Robocoin, a Bitcoin ATM manufacturer, using finger vein technology to identify customers and MasterCard trialing facial recognition.

9. Leveraging FinTech via a win-win strategic alliance

Every hour, 3.3 million people use Alipay for transactions, US$28.43 million is processed by PayPal and 9,000 P2P money transfers are executed via Venmo. FinTech companies are generally start-ups founded with the purpose of disrupting incumbent financial systems and corporations that rely less on software. This new industry is attracting more and more venture capitalists every year, from US$4 billion in 2014 to US$30 billion in 2015. They are serving several customer segments and banking products, especially payments for retail clients.

FinTechs are causing disruptions across the banking value chain, creating new opportunities for customer relationship development. Banks need to invest in and understand options to potentially respond to these disruptions with clear, in-kind, disruptive solutions of their own. Understanding where FinTech companies and technologies are going to disrupt their business model and the consequences will help banks define appropriate responses to be more agile and avoid losing market share.

Although FinTechs are competing with banks in some areas, banks should consider partnering with them, as banks and FinTechs have complementary needs. For both parties, a partnership should liberate them to focus on their core capacities and contribute these areas of expertise to the innovation process. On the one hand, FinTechs would be able to access banks’ on-the-ground market, full line of banking products with specific financial knowledge and the existing customer base they have accumulated over time. Having been established far longer than FinTechs, banks benefit from better customer loyalty and trust. Furthermore, they are also financially more stable and are more experienced with regard to being compliant with risk and regulatory requirements.

On the other hand, banks would be able to leverage the absence of legacy systems, the innovation, flexibility and agility, speed to market and technology expertise provided by the FinTechs. They would also offset their constraints regarding the recruitment of profiles with the necessary technical know-how to deliver a seamless customer experience.

An American multinational bank has become the latest bank to launch an accelerator program, promising mentoring and financial support to selected FinTech start-ups. Start-ups working in areas such as payments, fraud and operations can apply for the first round. Up to 20 start-ups a year will be selected by a panel of bank representatives, venture banking and innovation executives.

FinTechs are causing disruptions across the banking value chain, creating new opportunities for customer relationship development.
10. Shifting from a “data-capturing” to a “data-leveraging” approach

The digital era is generating an enormous amount of data, from word-of-mouth tracking, to social influence, etc. Banks need to make this data meaningful by collecting and interpreting relevant statistics and convert it into a better customer experience, using data as the foundation for better decision-making and action.

New technologies are enabling aggregation of customer information, allowing organizations to present the customer with a holistic picture of their wealth and financial needs.

However, most of the data stored still go unused. Banks need to shift from a “data-capturing” to a “data-leveraging” approach. Through the use of analytics, banks would be able to identify growth opportunities by mapping a list of revenue growth opportunities for relevant products in each business area. Banks could also better define customer priorities by identifying and valuing their needs together with gaps in their portfolio of products held with the bank. Finally, they would make the most of their employees resources, as the time dedicated to dealing with clients could be spent on the customers with the highest potential for the bank.

Another use of the collected data that banks hold is to open them to the public (open data) and encourage crowdsourcing. The exposure of banking, payment and settlement capabilities to the wider business eco-system via Application Programming Interfaces (APIs) enables banks to leverage the APIs of third parties for verification, accounting, and modelling services. An Australian bank released a customer-facing API framework and portal to share access to real-time banking data with third-party developers. Developers are required to register themselves and their application on the portal in order to get an API “key” that unlocks access to the data and functionality provided.
Conclusion

• There is no one-size-fits-all digital transformation journey—the latter depends on the organization’s business goals and its current degree of digital maturity. While some banks are starting to reap the benefits of their previous digital investments, others have only just embarked on their digital revolution.

• When driving their digital transformation, banks should not only focus on technology. Without a clear digital strategy, customer segmentation and appropriate data management capabilities, their digital business case could be put at high risk.

• Banks should start small to avoid big failures by adopting a “test-and-learn” approach together with an agile framework. In order to seize the benefits of the digital transformation, they also need to redefine the KPIs at brand and customer level.

• Besides building new or improved digital capabilities, banks should not forget to foster a risk-taking, innovative and collaborative digital culture across the organization, from employees to top management. Embarking on a digital transformation program is as much a people journey as it is a technological one.

• In order to become a leading digital organization, banks should focus on the following digital initiatives: become a data-driven enterprise, deliver a personalized and integrated customer experience, streamline and digitize their manual processes and adapt an appropriate digital operating model based on the chosen digital strategy.

• The main conclusion is that banks must constantly conform their digital offering to the market and adapt it continuously as needed.

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