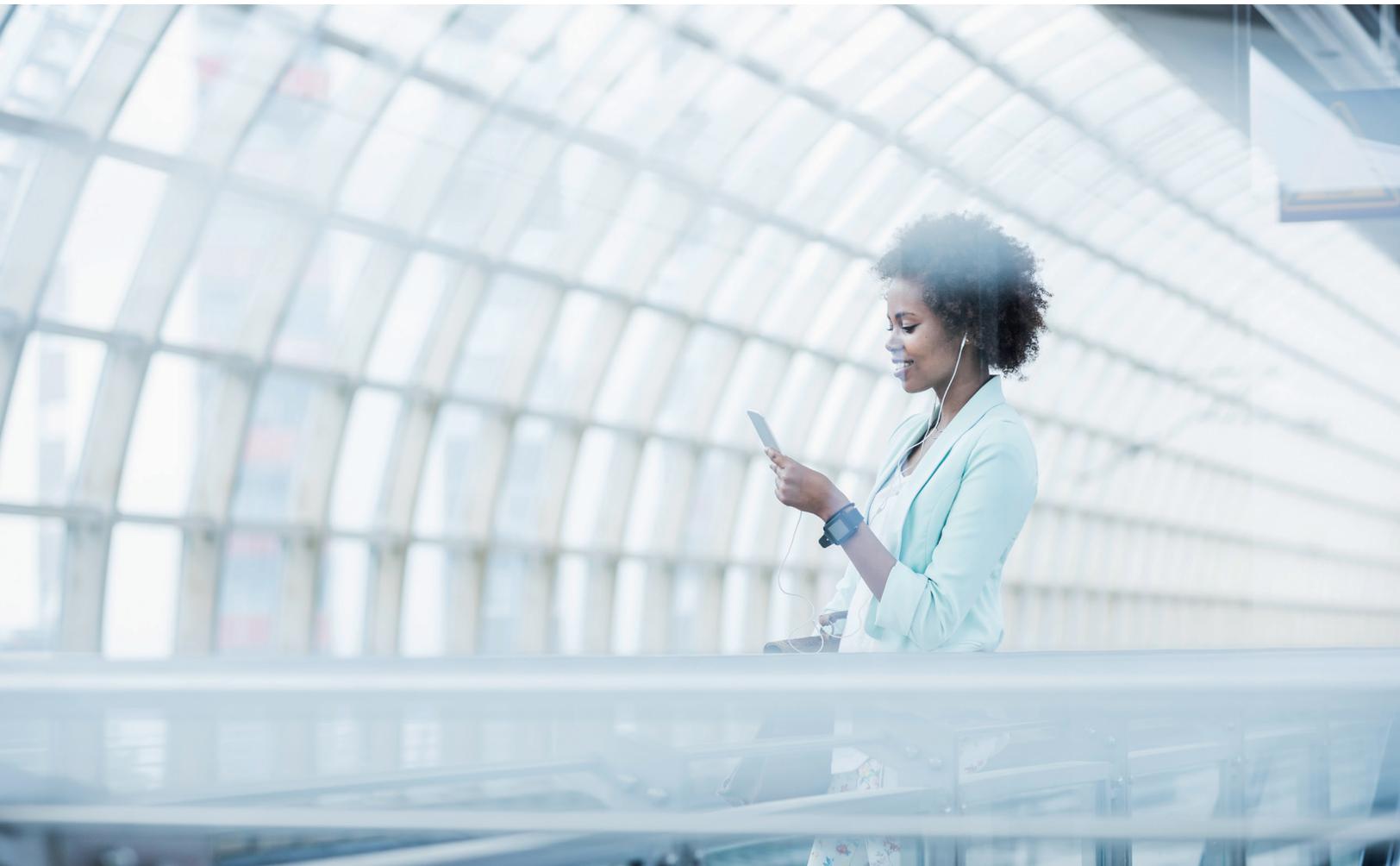


The lending revolution: How digital credit is changing banks from the inside

Faster credit decisions, vastly improved customer experience, 40 percent lower costs, and a more secure risk profile. Here's how to get there.

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Today in traditional banks, the average “time to decision” for small business and corporate lending is between three and five weeks.¹ Average “time to cash” is nearly three months. In our view, these times will soon seem as antiquated and unacceptable as the three weeks it once took to cross the Atlantic. Leading banks have embraced the digital-lending revolution, bringing “time to yes” down to five minutes, and time to cash to less than 24 hours.

That’s the profound result of a top priority for banks around the world: the digital transformation of end-to-end credit journeys, including the customer experience and supporting credit processes. Credit is at the heart of most customer relationships, and digitizing it offers significant advantages to banks and customers alike. For the bank, successful transformations enhance revenue growth and achieve significant cost savings. One large European bank increased win rates by a third and average margins by over 50 percent as a result of slashing its time to yes on small- and medium-enterprise (SME) lending from 20 days to less than ten minutes, far outpacing the competition. Our analysis suggests that a bank with a balance sheet of \$250 billion could capture as much as \$230 million in annual profit,² of which just over half derives from cost efficiencies (such as less “touch time” and lower cost of risk), and the remainder comes from revenue gains (increased applications, higher win rates, and better pricing). In this article, we will look at the six design principles that successful banks have used to build digital-lending capabilities and transform their institutions.

The varieties of digital ambition

As digitization proceeds apace, the dimensions of banks’ digital ambitions vary among segments and products. Digitization is becoming the norm for retail credit processes. Personal-loan applications can now be submitted with a few swipes on a mobile phone, and time to cash can be as short as a few minutes. Mortgage lending is more complex due to regulatory constraints, yet banks in many developed markets have managed to digitize large parts of the mortgage

journey. More than one bank has set an aspiration to automate 95 percent of retail underwriting decisions.

Banks are now treating SME lending as a digital priority. The reasons are clear: costs are high, and the opportunities to improve customer experience are significant. Furthermore, both traditional banks and fintechs already offer compelling digital propositions in SME lending, featuring dramatically shorter approval and disbursement times—a key factor for customers when choosing a lender.

Digital is also advancing in corporate lending, though naturally corporate banks are moving with greater caution and less urgency (given the relatively lower transaction volumes in this segment). Rather than reworking the entire customer experience, banks are enhancing common processes—for example, digitizing credit proposal papers and automating annual reviews to improve both time to yes and “quality of yes.”

Some banks’ digital strategies let corporate-transaction approvers focus their time on those clients and deals that matter the most. Low-risk credit-line renewals, for example, can be automated, while valuable human review time is focused on more complex or riskier deals. And data aggregation can be automated so that relationship managers (RMs) have the most relevant data and risk-monitoring scores at their fingertips—including financial performance, industry performance, market and sentiment data, and pertinent news and external risk factors.

Avoiding slow starts and piecemeal results

While most banks are digitizing parts of their business and operations, many are dissatisfied with progress, especially in credit. A few familiar frustrations include legacy IT systems; a general lack of trust in automated decision making; insufficient cooperation between businesses and risk, IT, and operations functions; limited data access; and scarce digital talent. Moreover, there is no single “owner” of

the credit process with the discretion to drive change at scale. A number of stakeholders need to align and remain constantly aligned over a prolonged period (two to three years in banks that have executed ambitious programs successfully).

These barriers have caused more than one bank to delay or sidetrack digitization efforts. Programs launched with great executive attention and focus lose momentum as the initial excitement of chief risk and lending officers evaporate. Investments needed to sustain programs are partly or wholly withheld. Incremental changes are sometimes substituted for planned end-to-end transformations.

However, numerous banks successfully digitized the credit journey. In the following pages, we offer the practical lessons that have emerged from these experiences, with special emphasis on SME lending, the area that is currently getting the most attention and investment.

Designing a successful digital lending transformation

Experience has shown that successful transformations rely on some basic principles.

An end-to-end journey but with limited scope

Many banks have found that an end-to-end view of the entire customer journey, including a target state set according to the customer experience, was crucial to success. For example, a Benelux bank redesigned its business-lending process from end to end, allowing it to eliminate numerous handovers. The result was about 30 percent greater efficiency. Without an end-to-end orientation, on the other hand, banks have seen disappointing results. Attempts to improve the credit process piece by piece tend to become incremental, lose customer focus, and miss the big-picture opportunity to deliver a fundamental step change in performance and approach. One Northern European bank found such an opportunity by shifting its focus for SME customers from selling

products to fulfilling customer needs. As a result it radically rationalized its lending-product range down to just three simple products, massively reducing complexity. This would not have happened with a piecemeal approach.

While taking an end-to-end view, however, successful banks have learned that it pays to limit the scope of the first wave of the transformation and focus on a minimum viable product (MVP). The MVP is scoped to be substantial enough to drive real value, momentous enough to create excitement within the organization, and simple enough to be designed and implemented rapidly. Improvements can then be made progressively in waves of rapid subsequent releases.

At one Scandinavian bank, as many as half of all credit decisions concerned SME customers with existing loans seeking additional credit. The bank decided to focus on improving their experience, since the cost to serve them was significant, but the decisions involved were less complex, as most of the necessary data were already available in the systems. Over an intense 20-week period, the bank designed a new end-to-end digital journey, including an online application process, a framework for making new credit decisions, a revised credit process with automated decision making and fast-track handling for simple cases, as well as radically simplified credit-paper and collateral-review processes. Certain features of the new journey were not included in the MVP but scheduled for later releases. This kind of approach avoids too much early-stage complexity so that a transformative solution can be implemented more quickly, establishing momentum for future change.

Building momentum for full automation

With good reason, risk managers can be wary of a fully automated approval process for business loans. Long-standing policies and decision processes often depend on manual reviews and cross-checks. Years

of root-cause analysis of defaults and assessments of soft factors have proved reliable but would be missed in an automated approach.

At one bank in central Europe, the long-standing business-lending process features a decision checklist incorporating thousands of criteria and covenants for contracting and disbursement. While time consuming and costly, the process does achieve the desired risk outcome. In fact, risk functions at many banks successfully use experience-based subjective assessments to achieve low default rates. While the accuracy of data-driven model-based decision making continues to improve, risk managers are correct in taking a cautious approach to automation.

Leading banks express this caution in two ways when introducing automation. First, to establish accuracy, many banks test models on past decisions. A bank in Scandinavia ran its newly developed decision engine on all applications from the past five years. The tests proved that the automated engine based on data-driven assessments and a structured credit “decisioning” framework was better at predicting default risk than the subjective human assessments had been—and far more consistent, which was a key factor in approving the model for use on new cases.

Second, banks start small, at first directing only a few cases to the fully automated straight-through digital process flow (sometimes called the “swim lane”). One Northern European bank recently opened the swim lane for fewer than 15 percent of applications, mainly the less complex cases. As the engine proves itself, the bank will gradually increase the flow.

In the most sophisticated examples, about 70 to 80 percent of SME-lending decisions are fully automated, with the remainder referred for credit review, allowing valuable expert time to be focused on complex or marginal cases.

Embrace relationship managers

RMs play an important role in SME lending. Digitization doesn’t replace this. While for some segments it makes sense to steer customers into a mostly self-service approach, successful banks have typically opted for a “multichannel, single application” route for SME lending, where customers can complete digital applications on a shared screen with their RMs. This allows the RM to guide the customer through the process, explain results of automated risk assessments, and quickly ask any follow-up questions required.

A Scandinavian bank went this route, for four reasons:

- in customer testing, it was clear this is what SMEs in the region wanted
- it allowed the strengthening of RM–customer relationships, and greater cross-selling
- it allowed the new digital journey to be introduced alongside legacy processes, giving RMs the option of using the old process to give them reassurance (and manage the small number of cases that could not be treated with the new process)
- the digital solution set the right incentives to discourage discounts and lowered the pressure on RMs (by delivering offers in near real time through the digital process, RMs and the bank could gain market share and margin)

Ultimately, RMs were able to provide loan approval in five to ten minutes about three-quarters of the time; more complex cases are decided in an average of 90 minutes (and not more than 24 hours) following a manual review.

Big data—but not too big

To develop models, many banks have expressed interest in using external data (when legally

permissible), including novel sources such as social media. While creative use has been made of unusual data sets, it is usually best to begin with readily available data. Transactional data have proved especially powerful. A number of banks and fintechs have developed tools to process transactions from primary operating accounts line by line, classifying them into detailed revenue and expense items. Advanced analytics can use these rich risk data to generate simplified financial statements, affordability ratios, customer- and supplier-concentration analyses, and so on, in real time. These transactional data offer substantially richer and more up-to-date insights about company performance than out-of-date annual accounts. With the second Payment Services Directive (PSD2) and other open-banking initiatives now coming into force, similar analyses can now also be performed on new customers.

Ambitious data-aggregation plans or multiyear data-lake projects are rarely good bases for digital-lending transformations. Such plans are frequently abandoned before completion. Successful transformations generally rely on existing data sources, sometimes using imperfect, robotics-based data integration (such as screen scraping) to get started. Recently, a major bank in Southern Europe successfully completed the early stages of its transformation using readily available demographic and behavioral data. That experience shows how pragmatic data solutions can create real impact

quickly, building momentum for subsequent, gradual data-management improvements.

By incorporating regulatory models in their new credit-decision engines, banks can satisfy regulatory requirements in less time and start reaping the benefits of digitization more quickly. A Northern European bank did just this, after applying the existing internal ratings-based system for business lending and building new automated analyses for affordability and cash flow.

The need for an agile approach

The divergent interests of business and risk management—not to mention operations and IT—will create inherent tensions for banks in redesigning credit processes. One Eastern European bank found that its months-long project to simplify the corporate-lending process had made little headway, ultimately due to legitimate but conflicting internal interests. The project became bogged down with individual silos optimizing for their own interests rather than collaborating on optimizing the customer's experience. It lacked an agile approach.

Agile project delivery is essential for successful credit digitization. The starting point is a set of colocated, cross-functional, full-time, dedicated teams empowered with decision-making authority and tasked to deliver products on deadline in intense bursts of effort called “sprints.”

Pragmatic data solutions can create real impact quickly, building momentum for subsequent, gradual data-management improvements.

However, while most executives are actively talking about agile, not many are actually doing it. Worse, we see many firms adopting “cosmetic agile,” where traditional project-management approaches are peppered with agile lingo and walls filled with Post-it notes, but necessary fundamental changes in ways of working are not adopted and organizational commitments are not made.

A common failure is the inability to overcome organizational silos. A cross-functional team with business, risk, IT, and operations is simply essential, for several reasons:

- collaborating across all functions helps strike the balance of customer-journey and business objectives with robust credit decision making and risk control
- bringing critical-path IT-development work into the control of the agile team allows rapid iteration and testing of journeys, data integrations, and results
- maintaining agile’s customer and “time to market” focus helps quickly assess trade-offs and work-arounds for IT and process bottlenecks as well as design solutions that allow rapid value delivery to customers

The agile redesign process is sometimes referred to as a “zero-based” approach. Teams begin with a blank sheet rather than thinking about marginal improvements to the existing process and the restrictions of existing policies. They define the essential mission, often working from the customer backward. This mode of operating can initiate deep changes that exceed incremental process adjustments and see beyond the constraints of legacy systems.

A further powerful aspect of agile is the iterative, sprint-based approach to developing solutions. Emerging prototypes are continually tested with

RMs and usually clients as well. Teams gather their feedback early on, so that less compelling ideas can be quickly discarded and attention focused on experientially successful ideas—which are also revised as needed. The working relationships fostered in agile teams create enormous engagement among colleagues from all areas of the organization, which ultimately translates into better ideas and faster results.

In a best-practice agile example, a leading European bank built a “digital lab” to enhance its credit processes systematically. Business, IT, and risk came together to align on objectives and incentives, while a dedicated organizational unit (the “digital factory”) was empowered to make decisions with quick cross-functional escalation mechanisms. The teams developed a safe IT environment to test changes before reshaping processes on a wider scale.

Consider fintech partnerships

The capability to assess and manage technology partners can be vital to digital-lending transformations. At some banks we have observed that the workflow engines underlying credit processes cannot be made to support real-time and online lending journeys. In McKinsey’s Future of Risk Management Survey,³ 85 percent of risk managers viewed legacy IT infrastructure as the main challenge in digitization. To address this challenge, many large financial institutions have partnered with fintechs (for example, ING with Kabbage and BBVA Compass Bancshares with OnDeck). The partnerships enable banks to develop new capabilities and present new customer offerings more quickly. Among the assets that fintechs can bring to the partnership are the following:

- full platform capability and data feeds for end-to-end journeys in new markets
- experience in new lending approaches, such as automating SME credit decisions through the use of alternative data sources (such as ecommerce-

transaction data from Amazon, PayPal, and eBay; cloud-accounting data from Xero; and banking-transaction data via application programming interfaces from financial-data aggregators such as Yodlee and Finicity)

- individual analytics components, which can be integrated into existing bank processes

The advantages of partnerships have clearly helped one global bank, which developed a digital-lending offering and then worked with an established SME-lending fintech to create the software platform for the customer journey. The software's features include the capability to integrate data from numerous sources and execute automated credit decisioning. While it used the fintech's workflow engine, the bank retained control over risk appetite by implementing its own decision logic and criteria. The estimate for internal development was a year or more; through the partnership, the project was up and running in four months.

Over 80 percent of top global banks have some form of partnerships with fintechs, of which 16 percent are related to lending. And the success of these partnerships is starting to be recognized. For example, ING and Kabbage partnered in Spain in 2015 to bring platform lending to Europe's small businesses. In 2017, the companies expanded their partnership to France and Italy to support their ability to scale and provide a redefined customer experience.

In pursuing partnerships, banks need to remain clear on partners' primary source of value. If solutions are simply bought off the shelf from vendors, they may lack competitive differentiation and may not fit with an organization's customer profile and business model.

Culture and implementation

The success of a digital-credit transformation rests as much with a managed cultural shift and capable

implementation as it does with the design elements we have been discussing.

Managing a cultural shift

Progress in digital-lending transformation occurs when departments and functions with separate priorities are on board. Resistance to change sometimes arises from a general lack of clarity on how digitization will affect the organization and its customers. Senior-management alignment on the goals of the transformation can help counteract emerging cultural issues. A defined end state does more than guide implementation; it can often help overcome opposition to the program. Other elements essential for success include the following:

- *People with the necessary skills*, including data scientists and business “translators,” will enable advanced analytics.
- *“Unreasonable” ambitions*. The most successful programs have a “the sky is the limit” culture, refusing to accept any obstacles or restrictions without first challenging them.
- *Visible transformation leaders*, from both business and risk, as well as frontline “champions.” Champions are often RMs who are able to convince peers of the benefits of the new digital approach; their feedback on the process will support better solutions.
- *An internal communications strategy* that explains the transformation and the reasons for it will be critical. This can include progress updates communicated electronically as well as organized in-person visits to foster practical cooperation.
- *Pilot testing before enterprise-wide scale-up*. Feedback from the user experience with pilots will provide the basis for refinements and build perception that the solution is a useful new addition to the customer experience.

A practical guide to getting started

Financial institutions that transformed their credit processes took common steps to mobilize their organizations to get there. Here are the distilled elements of successful implementations:

- **Determine the current state.** Measure the lead and approval times in the credit process (touch time, time to cash, and time to yes). Identify potential pain points in major end-to-end credit journeys, such as repeated hand-offs, lengthy written reports, reentry of data, process-error rates, and periods of dead time. Know what you're solving for.
- **Determine the right sequence for automation.** The relevant factors for establishing priorities include available material gains ("materiality"), ease of eliminating pain points, and overall complexity in execution. The most common credit journeys selected for automation at the outset of credit transformations are retail mortgages and SME lending (including business banking). The initial focus is usually on existing customers that are refinancing or increasing limits.
- **Learn from leading banks.** Teams can use success stories from leading banks as starting points for proposing innovative ideas and ideal solutions, before working out how these can be made operational. One large Western European banking group gathered its credit experts from various countries to share key elements of its credit origination and underwriting processes across segments and products. The innovative ideas that participants exchanged became the foundation of a high-level blueprint for the credit journeys of the future.
- **Use the target state to motivate the transformation.** We have emphasized the importance of the destination—the end state of the transformation that has been defined by the business, risk, and operations functions.

Supported by compelling value analysis and clear performance targets, this goal can be used to motivate real progress while dispelling potentially crippling misperceptions that digital transformations are not customer focused. A large US bank, for example, set as a goal a two-day limit for coming to conditional decisions on at least 80 percent of all corporate lending applications.

- **Mobilize the agile team.** The agile team establishes the parameters of the MVP, determines the target IT architecture for the solution, and begins working across functions (business, risk, technology, and operations) on the components of change, following well-defined timetables.



While the challenges in digital-lending transformations are formidable and the path to ultimate success can be bumpy, experience proves that the efforts expended are more than fully repaid in competitiveness and profitability. Success means much faster credit decisions, with customers getting cash up to 80 percent sooner; lower costs, with 30 to 50 percent less time spent on decision making; and better-quality risk decisions, which translate into greater profitability down the road. ■

¹ Based on data and interviews with approximately 20 financial institutions, mainly in Europe, and some in Asia and North America.

² *The future of risk management in the digital era*, a joint report from the Institute of International Finance and McKinsey & Company, December 2017, McKinsey.com.

³ Ibid.

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