

PROBLEM

Lenders need to maximize loan approvals while limiting defaults, but legacy, siloed, and rules-based systems make the process difficult

PROJECT

Automated model building can increase the number of lower-risk loans approved

RESULTS

With AMB, lenders can expect an increase in the loans offered, with optimized interest pricing and lower defaults, and a forecasted 20% ROI

THE PROBLEM: INCOMPLETE & LEGACY AUTOMATION FOR LOANS

It's already well-known throughout the financial services industry that automation is crucial to loan processing. Unfortunately, it's far less well-established what shape this automation should take. Is it most important for lenders to automate customer segmentation? Loan approvals? Loan tracking? Or maybe pricing optimization?

The real answer is that because of the highly interconnected nature of these processes, all four of them must be automated to create thriving, future-proofed loan operations. It doesn't matter how well you've expedited your loan approval process if you're failing to identify and attract the right target audience—which you may struggle to do if you're pricing your loans poorly.

Accomplishing this is also not a simple matter of using any automation system at hand. Too many lenders are currently working with a patchwork of manual or rules-based solutions, which are brittle and difficult to scale. What lenders need, now more than ever, is AI- and machine learning-powered automation for each step of the lending process.

BUILDING FOR A UNIFIED APPROACH

Machine learning solutions—and more specifically, automated model building (AMB)—are the only way for lenders to create a fully integrated set of models to optimize every piece of the lending process. Specifically, lenders need to make use of automated model building (AMB) technology. Normally the creation of models to automate the different parts of the lending life cycle would be a daunting task, requiring substantial data science and subject matter expertise, as well as constant dedication to scale and maintain potentially thousands of models across an entire organization. To genuinely create and benefit from automation, lenders must make use of AMB.

AMB solutions, such as SparkCognition's Darwin® product, tackle the creation and scaling of machine learning models throughout operations. AMB provides a productive

MAXIMIZE LOANS AND MINIMIZE DEFAULTS WITH AI



environment that empowers users with a broad spectrum of data science experience to quickly prototype use cases and develop, tune, and implement machine learning applications faster than traditional science methods.

This one unified approach can be applied to each of the four problems discussed above:

1. Improve customer segmentation

Using an unsupervised clustering approach, AMB can group populations and identify the types of clients lenders are most likely to have success with, enabling marketing and sales to adapt their efforts accordingly.

2. Create and scale loan approval models

Once an organization is attracting qualified leads, AMB allows lenders to automate the loan approval process quickly and at scale, using classification approaches and allowing users across an organization to speed loan approvals in a standardized fashion.

3. Track loans to predict defaults and delinquencies

With the loan approval process secured, lenders can use AMB to build models that track loans, continually updating projected default and delinquency rates and allowing lenders to proactively reach out to customers that are at risk of defaulting to work out a different deal. This information can also be fed into the customer segmentation models, to ensure that the lender is focusing on lower-risk populations.

4. Optimize loan pricing

AMB models can also be used to monitor macro lending patterns and thereby inform pricing decisions, tracking which categories have very low defaults and could be charged more without affecting the default level, or which populations should be priced higher due to a greater risk of default.

ABOUT SPARKCOGNITION

We catalyze sustainable growth for our clients throughout the world with proven artificial intelligence (AI) systems, award-winning machine learning technology, and a multinational team of AI thought leaders. Our clients partner with SparkCognition to understand their industry's most pressing challenges, analyze complex data, empower decision-making, and transform human and industrial productivity. To learn more about how SparkCognition's AI applications can unlock the power in your data, visit www.sparkcognition.com.

The Results: A New Concept of Automation

By using machine learning models for all four of these problems in concert, lenders will accrue massive benefits to their business. In the short term, lenders who invest in unified, machine-learning powered AMB for automation can expect to see a direct ROI of 20% across operations. But this is only the tip of the iceberg; as the models for the four stages of loan processing feed into and refine each other over time, the ROI is likely to continue increasing.

Looking ahead into the medium- and long-term, the advantage for early movers in adopting AI for automation across all the stages of the lending process will be compounded, resulting in an advantage that competitors may never be able to surmount.

To see all of these benefits, it's crucial that lenders look at machine learning-powered automation not as something that can be applied piecemeal to each separate problem, but as a system designed to work in unison across an organization, allowing continual improvement.