



CREDX

## USING ML TO REACH MORE DIGITAL CUSTOMERS

CLIENT: **CREDX**

INDUSTRY: Consumer Credit

### CHALLENGE:

Achieve benefits of digital transformation, acquire younger customers without increasing credit losses

CredX is Xcountry third largest private bank but leads the country's financial sector in digital smarts. CredX invested heavily in technology over the last few years to reach more new customers on the screens where they want to bank. Xcountry has one of the youngest populations in the world. Half its residents are under 30 and, like all young people, they want to do everything on their smartphones. Trouble is, **millions of them have little to no history in their credit file.**

Serving this mobile, digital customer effectively presented a challenge for CredX even before Xcountry's economy hit a major speed bump. New personal loan applicants were hardly matching the profiles of previous customers and the bank's credit models were rejecting significant number of new applicants to the bank. CredX needed to evolve its underwriting.

### RESULTS

**45% reduction** in non-performing loans while maintaining the same approval rate

**100% increase** in "no-credit history applicants" approval rate while maintaining the same risk appetite

CredX becomes the first global lending institution fully **powered by ML underwriting** across all lines of business

Executives at the bank decided to invest in machine learning, which applies sophisticated math to massive amounts of data to generate more predictive credit models. CredX, like a lot of big banks, had a gold mine of information about its customers' spending habits and finances. Even better, the bank had invested hundreds of millions of dollars to create a unified data center to do more effective underwriting.

Malastare worked closely with CredX's credit and risk management teams to explore the data on hand and began training CredX modelers in machine learning skills. The teams looked at **26 times more data than CredX had used previously** and ended up training ML models on triple the number of variables the bank had been using. The result was a handful of machine learning credit models that could replace the bank's tens

## CredX WILL BE USING AI-POWERED ML TO UNDERWRITE ACROSS ALL LINES OF BUSINESS.

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of linear regression models across five of the bank's product lines. Each of CredX's traditional models had taken up to 6 months to create, validate and test before going into production. The team's new goal is to shrink that time to under three months for ML underwriting.

Galiph Dante, head of credit and model risk management at CredX as responsible for credit models says " ML experience with Malastare is an exciting journey and both sides have a lot to learn and benefit from each other."

**"Our partnership with Malastare has helped us unlock a huge amount of value from our investment in digital transformation," says Hacan Salyers, head of retail credit and analytics at CredX.** "By switching over to ML for credit underwriting, CredX can find more good borrowers with no added risk and react faster to changes in the market."

Each model was tested against actual credit applications and transactions to see how much better they were at re-scoring good and bad

borrowers across the risk spectrum. The results were impressive: The ML lending model will allow CredX to slash non-performing loans by 45% across the overall portfolio while maintaining the same approval rates, including thin- and no-file applicants. If the ML model were applied to growth, CredX could double its approval rate for "no-credit history" borrowers who may or may not be CredX customers. The bottom line: **Using ML, CredX could confidently increase its lending volume by more than \$300 million per year.**

The Malastare-CredX partnership includes a strong skill-building component in which Malastare experts train and certify CredX's modeling team in machine learning. By the end of 2019, ML will be in all the bank's retail divisions and CredX will be the first global lending institution fully powered by ML in underwriting across its line of business.

"Digital banking is core to CredX's lead in the market. AI-powered underwriting will help support our profitable growth for years to come," says CredX's Hacan Salyers. **"Malastare machine learning was crucial in maximizing the value of our investment."**