Case Study

Leverage technology and alternative data to manage card acquisition risk and increase approvals by 20%

Credit card issuer

CHALLENGE
Revamp card origination risk decision framework to achieve organic growth for credit card portfolio

SOLUTION
Develop custom acquisition risk model leveraging advanced modeling technology and alternative data including payment history for telecom, pay TV, and utilities accounts

RESULT
Custom acquisition model scores 4% more consumers compared to benchmark and increases card application approval rate by 20%, while reducing bad rate by over 33% compared to existing model

Challenge

A leading financial institution wanted to achieve organic growth for its credit card portfolio by revamping its card origination risk decision framework. The firm wanted to develop a customized risk score model for new account origination, including exploring new modeling technology and incorporating alternative data to help power the model.

Solution

Equifax worked with the firm to develop a custom card acquisition risk model which leveraged both advanced modeling technology and alternative data. The goal of the model was to better evaluate the credit risk of borrowers and assess credit invisibles in order to expand approvals and increase revenue while managing risk.

The new model included:

- **Attributes transformation:** This advanced credit score modeling technology allowed for automatic binning and Weight of Evidence (WOE) by Advanced Model Engine (AME) to enhance separation
- **Telecom and utility data:** The model incorporated alternative data including payment history for telecom, pay TV, and utilities accounts to demonstrate consumers' day-to-day payment behaviors — data that is not included in credit scores and can allow firms to better assess credit invisibles
- **NeuroDecision® Technology (NDT):** This technology uses explainable artificial intelligence and machine learning to further enhance predictiveness

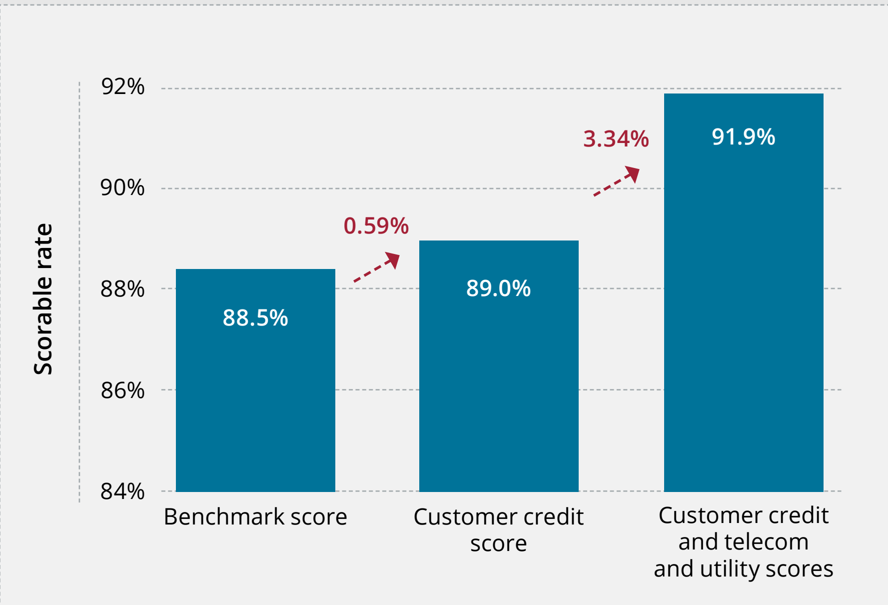
Results

The newly developed custom card acquisition model proved the value of using new technology and alternative data to evaluate the credit risk of borrowers.

Customized model scores 4% more consumers than benchmark score

By using the customer credit and telecom and utility models together, the firm can score more applicants and inform decisioning. The customer credit model allows the lender to score 0.59% more consumers compared to the benchmark score, while adding the telecom and utility alternative data on top of that increases scorable consumers by an additional 3.34%.

Increase in scorable rate from customer credit score model and telecom and utility model



By using new technology and alternative data, the custom acquisition risk model can **better evaluate the credit risk of borrowers** — including credit invisibles — to **expand approvals and increase revenue while managing risk.**

Customized credit score provides additional separation within benchmark score bands

The customized credit score provides additional distinction in terms of risk within a given benchmark score bank. This allows the lender to approve more consumers and increase the loan receivables while maintaining the same level of risk.

Dual gains demonstrate additional separation

Customer credit score

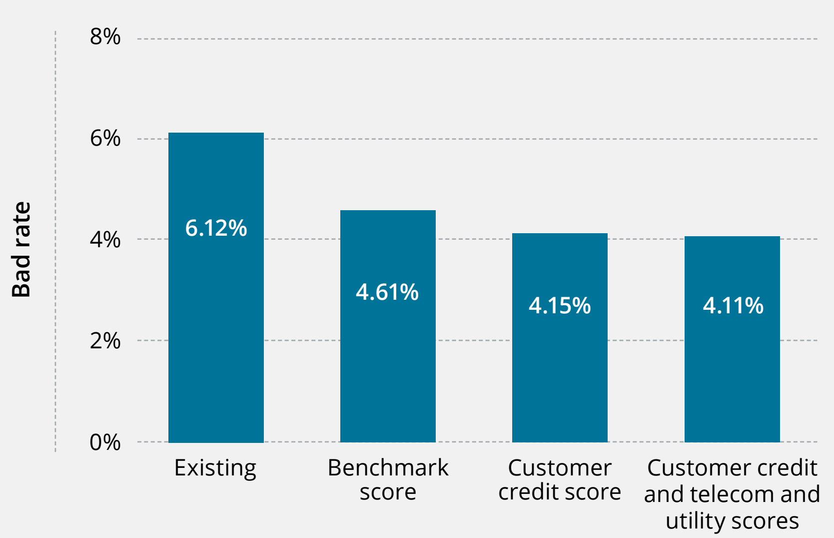
Benchmark score

Score Range	349-534	535-570	571-597	598-621	622-643	644-665	666-686	687-709	710-737	738-850	All
451-628	59.2%	49.4%	43.0%	36.9%	30.6%	24.7%	22.6%	16.1%	N/A	N/A	53.1%
629-651	56.5%	48.0%	41.4%	35.1%	28.7%	21.7%	15.3%	10.8%	2.5%	N/A	45.7%
652-672	53.1%	45.7%	38.3%	32.1%	26.3%	20.3%	15.0%	11.7%	8.5%	N/A	37.7%
673-691	49.5%	42.6%	35.1%	28.5%	23.2%	18.4%	13.7%	12.2%	7.4%	N/A	29.7%
692-708	46.5%	38.8%	31.9%	25.0%	19.4%	15.4%	11.6%	9.1%	6.3%	0.0%	21.6%
709-725	42.6%	35.5%	29.4%	22.2%	17.1%	12.5%	9.6%	7.2%	3.8%	0.1%	14.6%
726-748	40.8%	34.1%	25.8%	19.6%	13.9%	9.9%	6.9%	4.8%	3.2%	1.8%	8.3%
749-773	47.7%	30.1%	26.8%	18.3%	10.8%	7.0%	4.5%	2.8%	1.7%	0.9%	3.6%
774-798	N/A	23.9%	32.2%	21.6%	13.5%	6.0%	3.1%	1.8%	0.9%	0.5%	1.2%
799-850	N/A	N/A	59.0%	0.0%	2.4%	3.4%	1.4%	1.2%	0.5%	0.3%	0.4%
All	57.0%	46.5%	37.6%	28.5%	20.4%	13.3%	7.6%	3.5%	1.1%	0.3%	21.5%

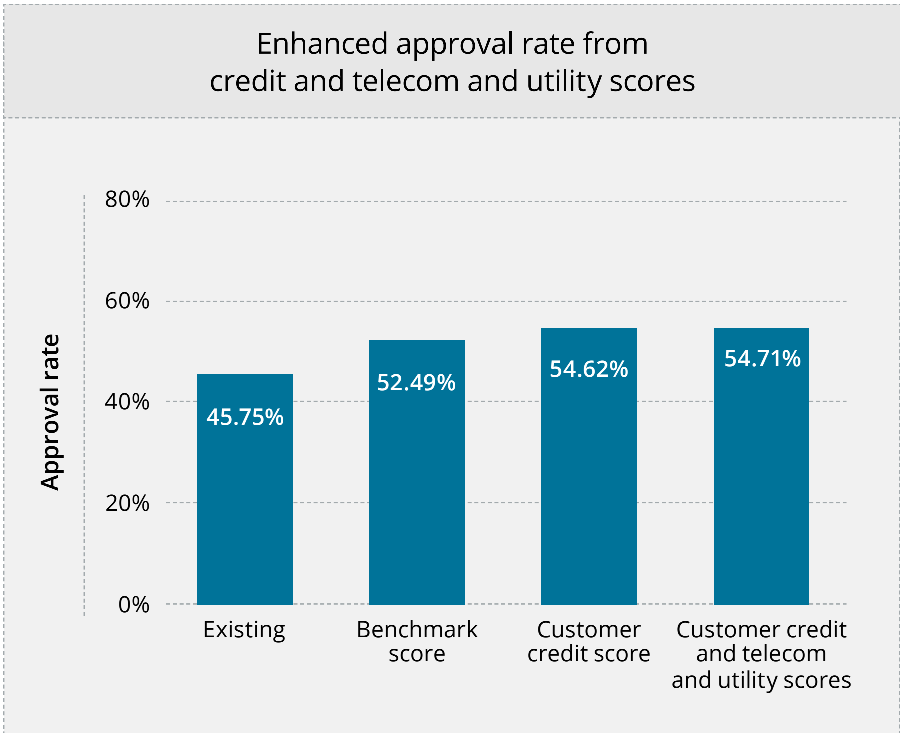
New model reduces bad rate by over 33% compared to existing

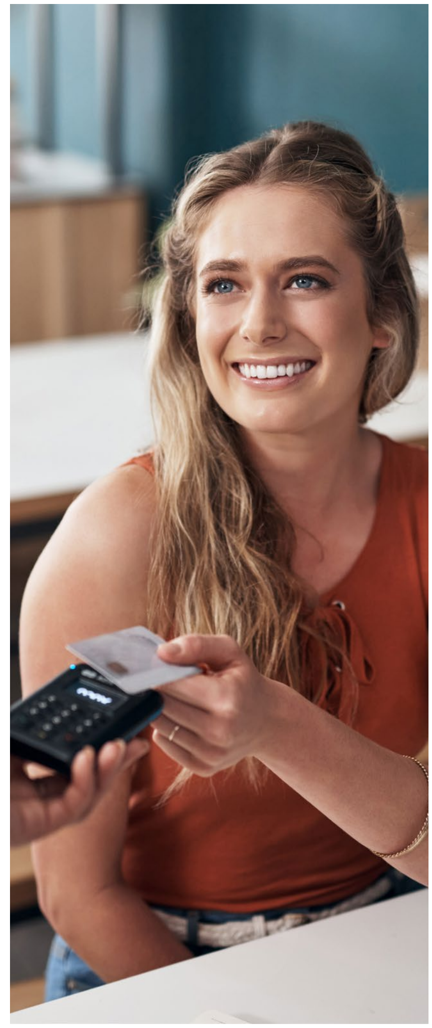
Integration of the customer credit and telecom and utility models allows the lender to maintain the existing approval rate while reducing the bad rate. The customer credit model reduces the bad rate to 4.15% which will save 10% on annual charge-offs compared to the benchmark score. By adding in the telecom and utility scores, the bad rate can be further reduced to 4.11% which will save the lender 33% on total annual charge-off dollars compared to the existing model.

Bad rate decreases with integration of customer credit and telecom and utility models



New model increases card application approval rate by 20%
Leveraging the customer credit and telecom and utility models enables the lender to increase the card application approval rate while keeping risk constant. The customer credit model increases the approval rate to 54.6% which will increase annual purchase by 4% compared to the benchmark score. Adding in the telecom and utility score increases the approval rate to 54.7% which will grow total annual purchase by 20% from the existing model.New model increases card application approval rate by 20%





Learn more about how Equifax can help your business advance its modeling technology and performance.

Alternative data
NeuroDecision Technology

2021 Case Study. Results may vary based on actual data and situation.