QUALCO
Technology

USE CASE

Forecasting Settlement Instalment Default Probability

Traditional collection methods often lack the predictive accuracy required for preemptive identification of settlements at risk of missing instalments. Debt collection companies need a more sophisticated approach to maintain economic stability and ensure timely payments.

Case Overview

Based on customer historical data, a servicer sought to detect which settlements already in arrears were likely to miss their next instalment. The goal was to develop recommendations for tailored communication strategies for different customer segments, leading to maximised results.

Our Approach

Using the machine learning capabilities of Qualco Data-Driven Decision Engine, we developed a predictive model to estimate the probability of settlements missing their upcoming instalment. The platform accurately assessed the likelihood of payment disruptions by analysing various parameters like unpaid settlement amounts and time since the last missed instalment.

QUALCO D3E IN ACTION

Step 1 Model Development

Qualco Data-Driven Decision Engine used data analysis techniques to develop a robust machine learning model that identifies predictive factors such as:

- **Monthly Instalments**
- **Occupation**
- **Unsettled Instalments**
- **Last Contact Type**
- **Geographical Location**

Building on the identified predictors, the model identified which settlements are most likely to miss their next upcoming payment.

Step 2 Account Segmentation

Based on the model's scores, which reflect the probability of missing a settlement, we segmented the accounts into three categories: low, medium, and high-risk. The effectiveness of the model was assessed by running a champion-challenger test on low and high-risk groups:

Low Risk

Champion:
Continued to receive the existing treatment approach with no alterations.

Challenger:
Received a more lenient treatment and more amicable call script, with **6% fewer** communication attempts.

High Risk

Champion:
Continued to receive the existing treatment approach with no alterations.

Challenger:
Received a more intensive treatment and assertive call script, with **3.5% more** communication attempts.

Step 3 Strategy Formation

We compared the outcomes between the subgroups to determine the revised strategies' effectiveness and then optimised the approach for maximum efficacy.

RESULTS

Improved Collections Results

Achieved a **26% increase in positive exits**, indicating a higher rate of promises to pay and enhancing overall payment recovery.

Increased Cash Uplifts

Boosted **uplift in cash collection by up to 7%**, highlighting the effectiveness of tailored treatment strategies in mitigating default risks and securing timely payments.

Enhanced Risk Management

Improved financial stability and **portfolio health** by proactively identifying and mitigating potential payment disruptions.

About

Qualco Data-Driven Decisions Engine

Qualco Data-Driven Decision Engine is an integrated decision-making platform that automates every stage of the credit portfolio and collections analytics workflow. It empowers:

- → **Data Organisation** to keep track of one's portfolio's changes easily
- → **Data Processing** to transform and sequence data for analytical insights
- → **Machine Learning capabilities** to understand customer behaviours and segments
- → **Tailored Treatments** to customise actions for various customer groups, enhancing performance
- → **Strategic Insights** to shape treatment strategies and estimate their impact on profitability
- → **Regulatory Compliance,** by generating compliance reports based on analysis results

Designed for any business that manages credit, Qualco Data-Driven Decision Engine equips financial institutions and servicers with the tools to transform raw data into actionable insights. By leveraging advanced analytics and machine learning algorithms, organisations can unlock untapped potential, drive operational efficiency, and deliver exceptional customer value.

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