



Garanti BBVA uses Experian's Optimize solution to optimize their origination strategies and reduce their Non-Performing Loans, while maximising approvals.

Garanti BBVA Bank is the second-largest private bank in Turkey, providing financial services in all business lines, including corporate, commercial, SME, individual, private, retail and investment banking. Garanti serves more than twenty-five million customers through 790 domestic branches and seven foreign branches.

Situation

Garanti BBVA was looking to improve its origination strategies in response to rapidly changing macroeconomic conditions. In addition to the solutions they were already using, they identified the need for a challenger solution that could frequently update their strategies in line with regulatory and market changes.

This challenger solution needed to optimize their origination strategies by minimizing the bad ratio within their constraints (segment, channel-based approval and profitability). It also needed to determine risk exposure and approval rates in an agile way for different conditions, showing what the impact would be on the business in a live environment.

Challenge

The biggest challenge for Garanti BBVA was to rapidly find an optimal strategy, adapt it to their production environment and simulate multiple different regulatory and economic scenarios, while also satisfying different stakeholders – with sometimes conflicting objectives. To create a truly optimized strategy for all approve/reject/refer decisions, they needed to consider the overall business goals as well as all their constraints and individual stakeholder KPIs.

Additional challenges:

- Data preparation times of up to two days
- Analytical processing time of up to one week
- Implementation of the new strategy in PowerCurve

As a result of these challenges, Garanti BBVA was looking for new methods to quickly adapt its origination strategies as external conditions changed.

To improve this process, they needed a flexible and automated system that could be adapted as required. The process needed to simulate different scenarios quickly and without requiring coding so that the best possible outcome could be assessed in a limited timeframe.

Solution

Garanti BBVA used Experian's Optimize product within PowerCurve to assign accept/reject decisions for each credit application with alignment to their overall business goals and constraints.

Optimize uses a mathematical optimisation algorithm and a champion/challenger approach for strategy tree optimization that allows businesses to assess the effect of different actions, decisions, limits or terms on profit and other KPIs. It produces clear information on the trade-off between decision scenarios to help businesses understand the impact of different constraints on profitability.

Working together, Garanti BBVA and Experian experts started by exploring a representative dataset of their existing origination strategy inputs and performance data that included loan applications during a certain period to look at the payment performance realised over 12 months.

Experian consultants supported Garanti BBVA in creating a framework for the Optimize solution to find the optimal credit allocation decisions by using Optimize's

mathematical optimisation algorithm. This allowed them to find the optimal point in the targeted approval and bad debt ratio, along with the best strategy to achieve this.

Optimize was able to show the bank what the optimal originations strategy should be according to the goals they wanted to obtain. This mathematical optimisation process helped them to achieve their objectives across every stage of the credit lifecycle. Additionally, this framework gave them a flexible and automated process which allows for quick adaptation to regulatory changes.

Optimize enabled Garanti BBVA to calculate the impact of every possible decision on every single customer simultaneously and select the best combination of actions to improve the ROI of credit lifecycle management and marketing management, while remaining within their budget.

Optimize is integrated with PowerCurve, so there was no need for Garanti BBVA to rewrite the new strategy with new code, it could simply be imported directly into PowerCurve. This meant that the chosen strategy was live in a day.

Results

As a result of using Optimize, Garanti BBVA was able to identify a previously hidden high risk population within the high bureau score segment, which resulted in a reduction of the bad debt ratio by 6%, while keeping approval rates stable.

In half a day, the Bank was able to run four different scenarios, each time challenging different KPI's to meet the expectations of all stakeholders.

Additional results of using Optimize:

- Decreased dependency on the complex optimization algorithm knowledge due to its no-code capabilities
- Data preparation time reduced from approximately two days to half a day after the first Optimize data mart (a smaller subset of a data warehouse) creation
- Analytical processing time was reduced from approximately one week to just one day
- Easy and quick implementation of optimized strategies into PowerCurve

“While defining credit risk strategies, the key to success is adapting quickly to changing economic and regulatory conditions. Alongside existing methods, having a challenger dimension is essential to strengthen decision-making. Using the Optimize tool as a challenger introduces a second dimension to our methodologies, enabling us to validate, compare, and refine strategies more effectively. It also allows us to assess multiple KPIs simultaneously in a user-friendly way, giving us the flexibility to balance profitability, risk, and approvals with ease.”



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