

Türkiye Finans

TFKB *Convex* and *Convex Study* – An Integrated Approach

Türkiye Finans Katılım Bankası uses Experian's cutting-edge advanced analytics solutions-*Convex* and *Convex Go*- in combination to improve efficiency across customer lifecycle management, focusing on processes like customer segmentation, propensity-to-buy analysis, as well as churn and retention.

Türkiye Finans Katılım Bankası (TKFB) stands as one of Turkey's leading participation banks, adhering to Islamic finance principles. With a network of 224 branches, the bank provides comprehensive services to retail, commercial, and corporate clients, including e-participation accounts, foreign currency transactions, and Sharia-compliant financing through Islamic contracts.

Situation

TKFB was looking to improve the development of its behavioral segmentation, propensity-to-buy and churn models for its retail portfolios. The bank was already managing a large number of models and needed a way to develop new models in faster cycles, while also updating existing models and continuously monitoring model performance.

This situation was particularly challenging due to the bank's lengthy model delivery cycles, which meant that models could not always be kept up to date.

TKFB aimed to enhance its segmentation, propensity-to-buy, and churn models for retail portfolios. With a large volume of models already in use, the bank sought faster development cycles for new models, as well as efficient updates and ongoing performance monitoring for existing ones. However, lengthy delivery timelines made it difficult to keep these models current, presenting a significant challenge for the bank.

Challenge

TKFB's primary challenge was the lengthy duration required for model development and deployment into production, with some models taking as long as nine months to complete.

A significant factor contributing to this issue was the organization's reliance on internal IT resources to re-code models into appropriate programming languages for production environments. This dependency created a bottleneck that extended time-to-market and delayed the realization of return on investment.

Additionally, the protracted development and deployment cycles hindered marketing teams from efficiently and effectively identifying new revenue opportunities. TKFB also faced difficulties managing a large volume of models, particularly regarding environment maintenance, timely updates, and monitoring.

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Solution

Collaborating closely with Experian's consultants, analytical studies were carried out on TKFB's retail sector to boost the efficiency of their CRM process. The team improved segmentation by focusing on customer behaviours as well as their current and potential value.

By utilising *Convex*—Experian's no-code Machine Learning model development and governance platform—the bank was able to build more accurate segmentation models, as well as create new churn and propensity-to-buy models for seven different products. They also implemented *Convex Go*, a robust deployment accelerator that functions independently as a ModelOps solution, enabling rapid model deployment into production. This approach significantly boosted deployment speed and automated batch model governance. Altogether, this combined strategy helped reduce dependence on IT resources, sped up ROI, and fostered an efficient analytics environment for CRM business unit.

Additionally, another business unit—the collections department—has also benefited from *Convex GO*. With support from Experian consultants, the bank's collections team successfully implemented their existing Python-based early warning and collection models into the *Convex GO* platform, allowing them to take advantage of its monitoring, deployment, scoring, and retraining capabilities.

Benefits

TKFB has been able to greatly shorten its model development, deployment, and documentation processes thanks to *Convex* alongside *Convex GO*. As a result, models are up to date through automated monitoring and retraining.

Another key advantage was that TKFB could dramatically speed up their model ROI by eliminating the need for IT to re-code and retest models before deploying them. Analysts gained faster access to models, which enabled the company to quickly enhance portfolio profitability. As a result, they were less likely to miss revenue opportunities and could promptly implement corrective measures and retention policies to reduce losses from customer churn.

Along with faster model lifecycles, TKFB automated its regular scoring process with *Convex Go*, which removed their dependence on IT for model scoring and maintenance. This change has also lowered the workloads related to managing code and maintaining environments.

Results

By leveraging Experian's advanced no-code modelling tools, the bank achieved substantial reductions in both model development and deployment timelines, directly contributing to increased profitability. Additionally, automation of model redevelopment and monitoring streamlined ongoing usage and governance.

Key metrics resulting from the implementation of *Convex* and *Convex Go*:

- 15% increase in response rates among the campaign audience
- TKFB is able to proactively focus on the top 10% most at risk customers, capturing 46.6% of the churn events expected within the following month
- Reduced model deployment times from months to minutes
- Eliminated IT bottlenecks and accelerated ROI

“Developing and deploying models into production in faster cycles has dramatically improved the accuracy of our customer behavioral segmentation, propensity-to-buy and churn models. Reducing model timelines from months to days has been a game-changer for TKFB and has directly increased our profitability.”

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