

Enabling AI in Banking

Using AI to Predict Customer Churn in Commercial Banking

>15%

Improved churn prediction

Optimize ROI across retention and acquisition activities

Executive summary:

This case study examines how NowVertical Group implemented AI solutions for ICBC, the largest bank in China, to predict customer churn in commercial banking. By leveraging advanced AI techniques like selective filtering, logistic regression, and clustering, ICBC improved its ability to identify customers at risk of churning. The implementation resulted in a churn identification effectiveness improvement of over 15%, allowing ICBC to take proactive measures for customer retention. The benefits of predicting churn in commercial banking include proactive customer retention, enhanced satisfaction, revenue optimization, cost reduction, and gaining a competitive advantage. These outcomes empower banks to improve operations, foster long-term customer relationships, and drive growth in the industry.

Business needs:

The Industrial and Commercial Bank of China Limited (ICBC) needed to improve potential churn identification. By accurately predicting churn, ICBC aimed to take proactive measures to retain customers and mitigate the negative impacts of customer attrition.

Business results after AI implementation:

- Churn identification effectiveness improvement of greater than 15%
- Better ability to proactively implement customer retention measures
- Cost reduction by focusing on retention rather than customer acquisition
- Ability to utilize data-driven decision making
- Opportunity to improve operational efficiency

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Overview:

This case study focuses on the implementation of AI solutions by NowVertical Group for the ICBC, which is China's largest bank and the world's largest bank by market capitalization.

Situation:

ICBC wanted to better identify the churn probability of its corporate clients. By identifying potential churners in advance, ICBC aimed to take preventive actions to retain these customers and enhance overall satisfaction.

Churn, or customer attrition, poses significant challenges and pain points for commercial banks. When corporate clients decide to discontinue their banking relationships and switch to another institution, it can have negative effects, including revenue loss, diminished market share, increased customer acquisition costs, disrupted customer relationships, and a negative impact on reputation. All of which are a drain on the bank's operations and profitability.

Given the impact, it is crucial for commercial banks to proactively identify potential churners and take appropriate measures to retain clients. By leveraging AI solutions, such as the one implemented by NOW, banks can enhance their churn prediction capabilities and mitigate the adverse effects of churn.

Approach:

To tackle the complex challenge of churn prediction, NOW leveraged a combination of

advanced AI techniques. NOW's approach involved building a sophisticated ML model that integrated selective filtering, logistic regression, and clustering methods. Selective filtering allowed for the identification and extraction of relevant data from the vast pool of customer information available to identify key features and variables that had a significant impact on customer churn.

Once the relevant data was extracted, NOW utilized logistic regression, a widely used statistical modeling technique, to predict the churn probability of current ICBC customers. By considering various customer attributes and historical data, the model could assign a churn probability score to each individual customer.

In addition to logistic regression, NOW also employed clustering algorithms to group similar customers together based on their characteristics and behavior. This allowed for the identification of distinct customer segments that might have varying propensities for churn. Clustering provided valuable insights into the different patterns and trends exhibited by customers, enabling ICBC to tailor their retention strategies accordingly.

By leveraging selective filtering, logistic regression, and clustering techniques, NOW's ML model enabled ICBC to more accurately predict the probability of churn for its current customers. This information empowered the bank to proactively identify customers at risk of leaving and take appropriate measures to retain them. Whether through targeted marketing campaigns, personalized offers, improved customer service, or tailored solutions, ICBC could now implement

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preventive actions to reduce churn and enhance customer satisfaction.

Outcome:

The implementation of the AI solution yielded significant improvements for ICBC. Once the ML model was put into operation, ICBC observed an immediate enhancement in the identification of customers at risk of churning. Specifically, the bank achieved a churn identification effectiveness improvement of greater than 15%. This improvement allowed ICBC to take proactive measures to retain customers and increase overall satisfaction levels.

Results:

Better predicting potential churners in commercial banks, as demonstrated through the implementation of AI solutions by NOW for ICBC, brings about several benefits that contribute to better operations and overall performance. New opportunities that can be driven by better predictability of potential churners include:

Proactive Customer Retention:

Identifying potential churners with higher accuracy enables commercial banks to take proactive measures to retain at-risk customers. Banks can deploy personalized strategies and offers, tailored services, and enhanced customer support to prevent customer attrition. This opportunity translates into increased customer loyalty, longer customer lifecycles, and improved revenue stability.



Enhanced Customer Satisfaction:

By accurately predicting potential churners, commercial banks can address customer pain points and offer targeted solutions before customers decide to leave. This proactive approach demonstrates a deep understanding of customer needs and fosters a sense of value and appreciation. Enhanced customer satisfaction leads to higher customer retention rates and positive word-of-mouth referrals, attracting new customers and strengthening the bank's reputation.

Improved Revenue Generation:

Retaining existing customers is more cost-effective than acquiring new ones. By accurately identifying potential churners, commercial banks can allocate resources towards retaining these customers, thereby reducing customer acquisition costs. Additionally, by focusing on customer satisfaction and providing tailored services, banks can increase cross-selling and up-selling opportunities, leading to higher revenue generation.

Long-Term Customer Relationships:

Identifying potential churners with greater accuracy allows commercial banks to intervene and address

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customer concerns promptly. By resolving issues and providing exceptional customer experiences, banks can build stronger, long-term relationships with customers. This opportunity opens doors for increased customer loyalty, repeat business, and potential referrals, positioning the bank as a trusted financial partner.

Competitive Advantage:

Commercial banks that excel in accurately predicting potential churners gain a competitive edge in the industry. By leveraging advanced AI models and analytics, banks can outperform competitors in customer retention and satisfaction. This opportunity strengthens the bank's market position, attracts new customers seeking superior service, and establishes the bank as a leader in customer-centric banking practices.

Data-Driven Decision Making:

Accurate churn prediction provides commercial banks with valuable insights into customer behavior and preferences. Leveraging this data-driven approach, banks can make informed decisions regarding marketing strategies, product development, and customer service enhancements. This opportunity empowers banks to optimize their operations, identify growth opportunities, and stay ahead in a rapidly evolving market.

Conclusion:

Predicting churn rate in commercial banks through the utilization of AI solutions brings about several positive outcomes. It enables proactive customer retention, enhances customer satisfaction, optimizes revenue, reduces costs, and provides a competitive edge. By leveraging the power of AI, commercial banks can improve their operations, foster long-term customer relationships, and drive sustainable growth in the dynamic banking industry.