

What We Did: Identify customer repayment behavior triggers

The Impact We Made: Reduced collection costs by more than 35%

Summary - Incremental impact of collection effort

During the economic downturn, the client needed to improve their collections and recovery process as more of their customer experienced economic hardships. The solution framework enabled the client to reduce their cost of early stage collections by more than 35% while maintaining their current collection rate. This was achieved by measuring incremental impact of collection actions (automated calling, mailing, etc.) and optimizing these activities based on characteristics of customers and constraining for call center effectiveness.

About The Client - A leading regional US bank

During the economic downturn the bank reached more than \$45MM monthly outstanding on a portion of its unsecured credit portfolio, which was classified as early stage delinquents. Currently the bank is able to collect 98% of the early stage delinquent amount on average.

The Challenge - Increasing collection levels

Due to the increased levels of collections, there was an increased focus on understanding the overall collection process and measure the trade-off between increasing the collection percentage and optimizing staffing levels. The client has invested in collection agents who used multiple channels to make connections with their customers. The bank typically used collection agents to call customers along with using automated calling technology (IVR) as well as sending mails. The initial question revolved around how they could improve their early stage delinquency collection rates.

The Approach - Collection optimization framework

Initially the client wanted to measure the responsiveness of customers to collection efforts and target as many customers as possible who would respond based on various actions. Mu Sigma proposed exploring the entire collections process to better understand the overall space. For customers who enter delinquency,

- Various actions (calls, IVR, mailers) and results were documented to measure the impact of these actions
- Total available resources for the collection process was measured based on availability of agents and IVR usage
- Costs of collection for each strategy was mapped to measure the ROI of the respective strategy based on recoverable amount

Having mapped the process, there was a clear perspective on collection efforts being more expensive than needed. While some customers required multiple calls, there were many customers who just needed a reminder for paying back. Due to this insight, the approach was modified to reduce the cost of collections as opposed to improving the collections percentage. The problem was solved in a two-phase manner based on the new direction.

- Analytical models were built to obtain the probability of collection from customers based on various actions. The model also estimated the incremental impact of each action
- An optimization framework was developed that suggested the best possible action for a customer, given constraints on resource availability and expected collections amount

The initial investigation of the problem allowed the client to explore different solution frameworks. Solving the first problem involved some amount of inquisitive thinking and allowed for the creation of a framework for looking at other phases of collections (viz., late stage delinquency and recoveries) in a more systematic manner. The optimization framework allowed the client to expand this initiative to other places allowing the client to optimize the overall collection process.

The Outcome - Annual cost savings of more than \$1MM

- The client was able to better understand the collection costs and implement a new approach to optimize costs for the delinquency process
- The client was able to realign call center agents to more impactful areas (such as late stage delinquency) and reduce staffing levels in early stage delinquency by 35%
- This resulted in annual cost savings of more than \$1MM without impacting the collection ratio of 98% for the early stage delinquents

Contact us at :

T: +91 80 7154 8000

E: ContactUs@mu-sigma.com

info@mu-sigma.com

Visit our website: www.mu-sigma.com

Or write to us: Mu Sigma Inc., 3400 Dundee Rd, Suite 160, Northbrook, IL – 60062
