LOS Decision Engine Optimization Improves Efficiency and Accuracy

Introduction

In the highly competitive auto lending arena, speed is a critical deciding factor in funding more loans. CU Direct recently conducted a study of indirect auto loan applications submitted through its CUDL Platform, and found that the probability of funding an approved application rose by as much as 55% when the application was system approved versus system countered, manually approved, or manually countered. Yet, in the same study, it was found that many credit unions do not use their credit decision engine optimally, as less than 10% of loan application decisions are rendered via the decision engine.

The Case for Decision Engine Optimization

Auto loan growth is expected to subside in 2017, with demand flattening. With this, credit unions must look closely at increasing decision efficiency and accuracy in order to capture a higher percentage of the market.

With respect to increasing indirect lending activity, some of the common fallacies among credit union lenders today are:

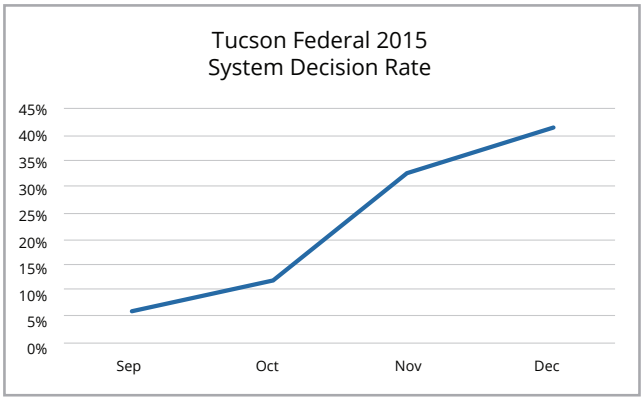
1. They need to lower their rates
2. They should pay higher dealer incentives
3. They must take on additional risk to acquire more loans

While those actions may result in more loan volume, CU Direct would recommend starting with something simpler, and potentially, less costly. Our research confirms that the one step that a credit union can – and should – take, before these other measures, is to simply get to 'yes' faster. Doing so can significantly increase funding rates on current applications. "It's just a matter of growing more comfortable with the decision engine and allowing it to render the same decision an underwriter would on a larger percentage of applications," says Michael Cochrum, CU Direct's Executive Lending Advisor. "Quite simply, put your data and technology to good use; maximize your loan potential by getting the most out of your loan origination systems' decision engine."

A Credit Union Success Story

Tucson Federal Credit Union ($387M, AZ), engaged CU Direct's Advisory Services in late 2015 to review its credit decisions and automated decision rules. Their goal was to increase the percentage of system rendered credit decisions using CU Direct's Lending 360 Loan Origination System (LOS) and robust decision engine, which the credit union implemented earlier in the year. When the credit union reached out for assistance, it was using the LOS for both direct and indirect loans, but had only achieved a 3% total auto decision rate on applications. The rest of the applications were instead underwritten in the centralized underwriting department manually.

CU Direct's Advisory Services reviewed the credit union's lending policies and procedures and then conducted a statistical analysis of the manually underwritten credit applications. They then recommended changes in the credit union's decision engine setup that mimicked the tendencies found in the manual underwriting decisions. Based on this analysis and testing against past application data, Advisory Services was able to predict that the credit union could improve their system decision results from 3% to approximately 27%, with system approved applications almost tripling. Bottom line, these predicted results were achieved without the credit union changing any of its existing lending policies.



After implementing the recommended changes to their decision engine rules, Tucson Federal's VP of Lending and Collections, Ellen Yacovone, began monitoring the new decision results, primarily to ensure that unwanted loan applications were not inadvertently approved. She has found that not only have the rule changes exceeded the credit union's goal of 20% system decisions, but the credit union has been experiencing system decision rates between 40% and 50% since the changes were made. Yacovone concluded that "This project exceeded

our expectations; it was delivered on time, at a reasonable cost, monitoring the results has produced no concerns or adjustments, and the auto decision ratio far exceeded my goal."

Assessing Real Risks in Portfolio Performance

Another critical hurdle arises when decision engine rules do not reflect the real risks in portfolio performance. Many decision engines are initially implemented with standard rules related to Debt-to-Income ratios (DTI), Loan-to-Value thresholds (LTV), Time on Job, Time at Residence, etc. However, these rules do not always reflect actual lending policies or practices, nor do they always have an impact on loan performance once a loan is made. When analyzing manual decisions with several credit unions last year, Advisory Services found that underwriters routinely ignored system decision thresholds and made allowances for attributes, such as time on the job or vehicle age, especially for lower risk borrowers. In cases such as this, decision rules should be changed to reflect what is taking place in real life.

Advisory Services has also analyzed several credit unions' portfolio performances via CU Direct's Lending Insights data warehouse. Using linear regression analysis, our analysts were able to identify the most significant predictors of default in an active portfolio and interestingly, attributes related to DTI were rarely found to be significant. In other words, these credit unions were placing a strong emphasis on DTI ratios when underwriting applications, when in reality DTI rarely contributed to default. This clearly is not always true, and every credit union should have an independent analysis conducted to determine the factors that affect performance the most. But, it is important to recognize that if the credit union's decision rules do not take actual default risk factors into account, then credit decisions of any kind, whether they are manual or automated, are of questionable reliability. CU Direct's Cochrum asserts that "More likely than not, these insignificant parameters are preventing the credit union from approving otherwise good loan applications."

Benefits of System Rendered Credit Decisions

Two final benefits that system rendered credit decisions provide, beyond speed over manual credit decisions, are efficiency and accuracy. It is quite evident that if system decision rates rise from under 10% to more than 40%, underwriters are going to spend less time reviewing credit applications. But, we have to consider the quality of the application data that is being received today. In a direct environment, service representatives often enter very basic information into the system, and pass the application off to centralized lending to get the process started. Then, there is significant time spent between the representative and the underwriter requesting additional information to approve the loan. When applications are rendered that result in an immediate system decision -- that is not always favorable (based on limited information) -- service representatives will discover, out of necessity, to provide more robust and complete application information. As a result, that additional time available to underwriters can be spent analyzing marginal applicants, looking for creative ways to earn their business. In the end, loan applications and lending decisions are more consistent and accurate, because of the insistence placed by the decision engine on the one inputting the data.

Credit unions have few options when it comes to creating a competitive advantage in the world of financial services, due to size and regulation. But, that doesn't mean that credit unions shouldn't take every opportunity to even the playing field. Technology has allowed credit unions to have the same power to optimize operational efficiencies as their competitors. It now becomes incumbent upon the credit union to take that next step to ensure it is using the technology to its fullest.