

Identifying high risk **Credit cards** customers using **Behavior scorecard**

• **Situation & Challenges**

Our client, one of the largest private banks in the APAC region, has a diverse credit card portfolio. Like other players in this cut-throat competitive market they had to resort to aggressive marketing campaigns (both acquisition & portfolio management) which put severe stress on the credit quality of their portfolio. Although, the bank was operating at a reasonable delinquency level, the management felt the need to put in-place an early warning mechanism which would not only help them maintain the current level of delinquency but would also find ways to reduce it further

• **Our Approach**

We designed the early warning mechanism to address two essential features that such a system must have

- a) A predictive **tool** which throws out accurate & actionable insights about impending customer behavior
- b) Pre-defined **strategies** for each class of insights

Like in any typical bank of this size, collection activities for our client were geared towards the customers who were already delinquent. However, we have seen in our experience that benefits are far higher if a collection officer also start focusing on a group of customers whose status may be current but their probability to flow to the delinquent bucket is reasonably high. In today's stressful environment it is important to take pro-active measure so that such occurrence is prevented as much as possible to contain future losses.

The Tool

We developed a Behavior Scorecard which helped our client implement such proactive pre-delinquency targeting only those customers whose probability to default was high and thus reducing flow to bucket 1 and hence improved portfolio management. For improved operational efficiency collections process was streamlined by avoiding unnecessary calling for bucket 1 selfcure group whereas increasing intensity for high risk customers in the current bucket and thus optimizing resource.

Strategy:

Using the same tool all the card members were segmented into various risk groups ranging from Low Risk - High Risk.

Score	X(%)	NPL(%)	SM (%)	Write-Off(%)	Ever X(%)	Ever NPL(%)
<= 545	15.18%	10.59%	26.40%	6.97%	64.18%	17.34%
546 - 566	8.87%	5.59%	14.31%	3.24%	40.33%	8.96%
567 - 583	6.80%	4.08%	10.32%	1.45%	30.33%	5.94%
584 - 599	5.40%	3.11%	8.39%	1.37%	23.73%	4.76%
600 - 618	3.52%	1.67%	5.05%	0.58%	12.08%	1.90%
>= 619	2.61%	1.41%	3.56%	0.31%	9.14%	1.46%

Excellent Risk ranking helped identify risk groups

Fig: performance behavior scorecard on an out-of-time sample: Obligor were scored and their behavior was studied for next one yr

Based on these risk levels various portfolio action strategies were structured. Effective credit policies and containment actions were devised for High-Risk group collection management. Additionally this group was ineligible for additional product or incremental exposure like x-sell / top up / up grade / pre-approved programs for next 6 months. Further policy tightening was deployed to reduce cash advance and over limit exposure.

For Low-Risk group customers various pro-active retention and enhancement strategies were developed. Customers were offered line increase program, x-sell / top up, pre-approved products, skip payment, long grace period (CARD) etc. to enhance customer satisfaction and increase their product holding with the bank which in turn contained attrition and increased customer profitability. The targeting was further fine-tuned using appropriate X-sell/propensity models. Similar strategies were developed for Medium Risk group aligned with their risk profile.

To ensure efficient execution and monitoring and improved loss forecasting various tracking MIS were put in place.

• Result

The newly developed behavior scorecard with KS of 56 (a 11 point increase from the existing version) freed-up 20% of the customer base eligible for the marketing programs without deteriorating the bad rate in the portfolio. This group was ineligible earlier for positive portfolio action due to other additional adhoc judgmental risk filters & a poor differentiating ability of the existing scorecard . The new tool lead to improvement of the approval process in the cross sell programs.



Flow rate from Current to X improved by 70 basis points and reduced the delinquency rate (30 + DPD) by **200** bps! By prioritizing the risky current customers and de-prioritizing the self cure customers, tele-calling expenses reduced by 50% from the previous levels which was a monthly saving of over 2000 USD. Since, this tool was way better than anything they had earlier, it helped them derive better estimates of regulatory capital as per the Basel II requirements. This led to significant reduction in provisioning amount

How  is your business?