

## Verification Methodology Optimization

*Fractal helps lending company determine the correlation between verification and customer repayment behavior and optimize its overall verification methodology*

### Client challenge

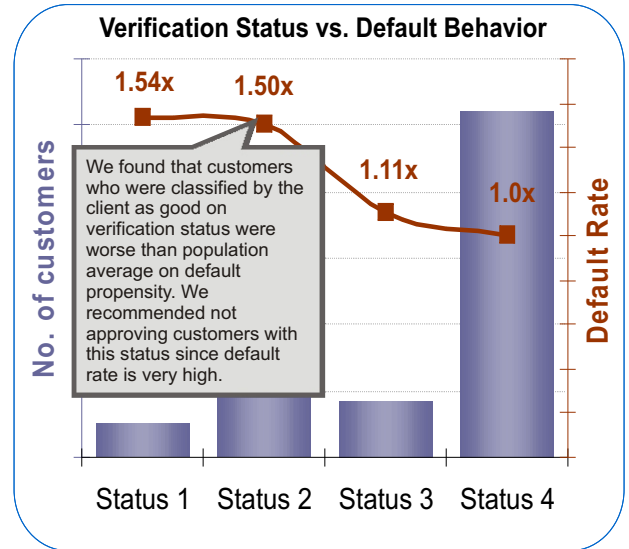
A leading consumer lending company decided consumer credit risk based on based its underwriting model. After the underwriting model approved the potential borrowers the company would do verification checks on them. The company wanted to see if the verification results had any correlation with the repayment behavior of their customers. The company also wanted to check if there were any inefficiencies in the credit verification process that could be removed.

### Solution

Fractal carried out a detailed understanding of the verification methodology to determine the gaps in the current systems and processes. Post this, Fractal segmented the customers and studied the behavior of each of these segments to determine the correlation (if any) between the verification methodology and actual customer behavior post loan disbursement. Fractal also built a Chi square decision tree to recommend an optimized verification process to acquire customers with least propensity to become "bad".

### Results

Through the results of the analysis we were able to establish that certain verification status checks that were currently being approved actually had a 50% higher default rates as compared to the portfolio average. Therefore, we recommended either not approving customers with these verification status codes or approving them with a different product structure.



Secondly, we also found that there was a very high correlation between some of the verification results and statuses. This implied that some portions of the verification could be removed as they were redundant. Our analysis showed that about 30% of the verification process was redundant and could be eliminated without any loss of information.

Client Verification Categories	Fractal Categories			Total
	0	1	2	
0	-	0.0%	-	0.0%
1	-	19.6%	25.4%	45.0%
2	-	20.6%	28.2%	48.8%
3	-	22.6%	27.5%	50.1%
4	-	27.0%	27.0%	54.0%
Total	-	19.7%	25.9%	45.6%

Verification process priority order was ascertained and cost savings obtained by eliminating certain verifications. We recommended that customers belonging to the client severity category 2 exhibited better than population default behavior and hence the relevant categories should be classified as 'green'.



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