

Managing Small Business Credit Risk

Fractal helps PAE manage credit losses through predictive behavioral risk models

SUMMARY

Client

PAE - A leading auto parts distributor

Challenge

- In a highly fragmented and competitive market place, business volumes depended on the amount of credit extended.
- The challenge was to manage credit loss without affecting business volumes.

Solution

Fractal's behavioral scorecard

Result

Fractal's scorecards enabled better credit decisions, thus reducing defaults without seriously impacting business volumes

The Business challenge

PAE is one of India's largest auto components supplier. PAE sources auto components from multiple manufacturers and supplies these components to over 10,000 retailers spread across the country. Most retailers buy products from PAE on an extended credit period, varying from 30 to 90 days. Extending credit to retailers is critical to enhance sales. However, credit extension was also leading to serious credit losses, resulting in direct erosion of profits and in an indirect way blocking working capital which could otherwise have been deployed fruitfully to enhance revenues.

The challenge lay in devising a process for credit extension that would allow PAE to extend credit to retailers with low default risk, while systematically reducing or refusing credit to the potential defaulters.

The Solution

Fractal recommended a scorecard based approach to credit extension which would score retailers on an ongoing basis for their default risk. The behavioral scorecard would use business transactions with PAE as inputs for assessing default likelihood.

Integrating the data

The biggest challenge lay in identifying and integrating data for building the model. Fractal combined billing information with repayment information to generate monthly delinquency status of all retailers. The next step was integrating information that could be predictive of the retailers' credit behavior. The database team from Fractal collected information from multiple accounting systems to generate behavioral information on each retailer.

Exploration & analysis

Fractal's analysts analyzed the prepared data to identify patterns and factors that could map current data to future default events. Multiple aspects of the retailer's relationship with PAE were explored including purchase frequency, nature of products purchased, purchase amounts, past payment behavior, average payment period, size of business etc. Through the application of advanced analytical techniques Fractal constructed a robust predictive model that powerfully segregated the potential defaulters from non-defaulters.

“The data visualization phase was the most intriguing and enlightening part of the engagement. We learnt a lot about the behavior of our customers that we didn't know over the past several decades!”
- Pritam Doshi, Vice President
PAE.

■ Result

Initial results showed that the model could very effectively segregate the defaulters from the non-defaulters. Subsequent results from implementation of the model also delivered very powerful results capturing as much 75% of defaulters in the top decile by default score. PAE has successfully deployed the model to make credit extension decisions, and today is able to allocate working capital limits across retailers most effectively and efficiently.

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"PAE's raw data was very cumbersome and we appreciate the work done by Fractal on data cleansing and preparation. Fractal has provided us useful suggestions on streamlining data storage, so that we may increase utilization of our data for decision making."

**Prabhakar Posam,
Chief Technology Officer,
PAE**

"We see strong benefits accruing to us from Fractal's scoring strategies - primarily through lower defaults, enhanced revenues and better working capital management."

**Pritam Doshi,
Vice President,
PAE**

➤ About Fractal

Fractal is a leading provider of customer analytics to consumer banks, credit card issuers, CPG companies and telecom companies. Fractal's analytical solutions have helped companies across the globe enhance profitability by powering their customer management efforts with scientific decision making.



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