Quantforce

THE PRINCIPLES OF SCORING

As a technique, Credit Scoring belongs to the domain of Predictive Modelling, as it tries to predict a future bad debt or bankruptcy, from past and current observed credit related data.

The "prediction" itself is calculated by a statistical formula, whereby different credit related data fields are mathematically combined into a final outcome, the so-called 'Score'. This 'Score' is then an expression of the likelihood that a client will default on payment or enter into bankruptcy proceedings.

Usually, the lower is the score, the higher the likelihood of a future default on payment. The higher the score, the lower the future likelihood of a default on payment.

Predictive Modelling therefore refers to the development of this mathematical formula. Hereby, historical relationships between data or variables, and a 'credit event', are used to create the mathematical prediction formula.

Imagine for example that you are in the month of January of 2018, and that you observe the payment morale of your customers over the year 2017. You browse through the way the customers paid their invoices throughout 2017, and suddenly come to realise that of the customers whose overdue days slowly increased during the first 6 months of 2017, the vast majority demonstrated unacceptable delays of payment in the second half of 2017. You then check the customers whose overdue days either stayed stable or declined in the first half of 2017, and find that only a handful demonstrated unacceptable delays of payment in the second half of 2017.

What you have just found, is in effect a 'predictive data pattern' from studying historical data (the payment morale evolution in the first half of 2017) and historical outcomes (the default of payment in the second half of 2017). With this knowledge, you can now 'predict' customers who are likely to cause problems in the near future, by observing how they have paid their recent invoices.

The technique of predictive modelling is in effect all about detecting the above relationships in the data. Specifically in credit scoring, it does so on the basis of credit related data, of which the invoice data is the most predictive data at hand. In the above example, only one type of data field is used, but as there are many such possible relationships ('variables'), they must first be selected, and secondly be 'weighted' as some variables may be more – or less - important than others. In Predictive Modelling or Credit Scoring, this two-step approach is dubbed as 'univariate analysis' and 'multivariate analysis'.

The final outcome is a formula, which using current and past credit related data, can be used to identify clients with future unacceptable payment morale.

Very often this technique of developing such a formula was quite elaborate, time consuming and as a result, quite an investment.

Harnassing the power of technology, Quantforce's suite of solutions however brings the power of predictive modelling right into the hands of the business experts – credit analysts, managers and directors alike.