Contactgroep Beleidsinformatici Leuven

Credit Scoring Workshop

Tuesday, March 11, 2003

KATHOLIEKE UNIVERSITEIT LEUVEN

Program

13h Reception

13h15 Opening
Prof. Jan Vanthienen (Katholieke Universiteit Leuven, ETEW, Departement of Applied Economics)

13h30-15h15 Frontiers of Credit Scoring
Prof. Jonathan Crook (Director of The Credit Research Centre, The School of Management, University of Edinburgh)

This talk will give an overview of recent research in selected aspects of credit scoring. It will review studies, which have investigated the relative predictive performance of different algorithms designed to separate populations and their interpretation. Recent approaches to the possible reject inference problem will be discussed including for example the use of bureau data, mixture distributions, multiple imputation. Markov chain models will be reviewed and in particular the stationarity and first order property of default probability transition matrices. We will consider the performance of survival models for predicting hazard rates. Graphical models will be explained and the current view that relatively few variables are deleted when the networks are used explained. The talk will consider the scope for international scorecards and allude to some very recent results for some European countries. We then explain the development of the strategy curve and the model of profit maximisation under specified acceptance rule constraints. We will discuss the policy implications of the curve. This will lead to the holistic profit measure of the performance of a scorecard, which is independent of the relative costs of misclassifications. Recent developments in risk based pricing will be briefly mentioned as will recent work on portfolio analysis.

Prof. J. Crook specialises in credit scoring, and the demand, supply and competition in the credit industry, both over time and between households. He has published papers on the comparative performance of algorithms for developing credit scoring models, on the demand for debt, on credit constraints, and on predicting when consumers default. He has coauthored/coedited four books on the subject.

15h15-15h45 Coffee break

15h45-16h30 Avoiding Overly Optimistic and Unreliable Predictions in Credit Risk Applications
Jan Adem (K.U.Leuven), Prof. Willy Gochet (K.U.Leuven)

In credit risk applications, there is often an order in the risk classes. Practitioners naturally prefer to predict a high risk applicant as a moderate risk rather than a low risk applicant. Given the large amounts of money involved, practitioners also like to have an idea of how reliable a risk prediction is. A classification approach that takes such practical considerations into account has been developed. The approach is based on mathematical programming and bagging. A real world credit risk application is worked out in detail and illustrates how our approach can be used successfully.

16h30-17h30 Developing business intelligence solutions for Credit-Risk Evaluation
Bart Baesens (K.U.Leuven), Prof. Jan Vanthienen (K.U.Leuven)

In this presentation, we will demonstrate how data mining techniques may be efficiently adopted for credit-risk evaluation. Two important criteria for successful credit-risk evaluation systems are accuracy and complexity. In a first step, we will elaborate on how to compute the accuracy of a credit scoring system. Next, we show how these systems can be made intelligent in the sense of providing comprehensible and user-friendly explanations for the classifications being made. We hereby use neural networks and solve their black box property using rule extraction techniques.

17h30-18h Discussion

18h Drink and dinner

Location

Arenberg, Restaurant - Seminaries
Kapeldreef 46
3001 Heverlee (Egenhoven)
Near E40, exit Leuven

Fee and Registration

Registration fee is €270 (all in).
Please register before March 5, by email to: Bart.Baesens@econ.kuleuven.ac.be.
For more information: 016/32.68.84