

LIFT-BASED QUALITY INDEXES FOR CREDIT SCORING MODELS AS AN ALTERNATIVE TO GINI AND KS

MARTIN ŘEZÁČ and JAN KOLÁČEK

Department of Mathematics and Statistics
Masaryk University
Kotlářská 2, 61137 Brno
Czech Republic
e-mail: mrezac@math.muni.cz

Abstract

Assessment of risk associated with the granting of credits is very successfully supported by techniques of credit scoring. To measure the quality, in the sense of the predictive power, of the scoring models, it is possible to use quantitative indexes such as the Gini index (Gini), the K-S statistic (KS), the c -statistic, and lift. They are used for comparing several developed models at the moment of development as well as for monitoring the quality of the model after deployment into real business. The paper deals with the aforementioned quality indexes, their properties and relationships. The main contribution of the paper is the proposal and discussion of indexes and curves based on lift. The curve of ideal lift is defined; lift ratio (LR) is defined as analogous to Gini index. Integrated relative lift (IRL) is defined and discussed. Finally, the presented case study shows a case when LR and IRL are much more appropriate to use than Gini and KS.

2010 Mathematics Subject Classification: **Kindly Provide.**

Keywords and phrases: credit scoring, quality indexes, Gini index, lift, lift ratio, integrated relative lift.

Received February 14, 2012