Improved Marketing Decision Making

in a Customer Churn Prediction Context Using

Generalized Additive Models

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<u>Abstract</u>

Nowadays, companies are investing in a well-considered CRM strategy. One of the cornerstones in CRM is customer churn prediction, where one tries to predict whether or not a customer will leave the company. This study focuses on how to better support marketing decision makers in identifying risky customers by using Generalized Additive Models (GAM). Compared to Logistic Regression, GAM relaxes the linearity constraint which allows for complex non-linear fits to the data. The contributions to the literature are three-fold: (i) it is shown that GAM is able to improve marketing decision making by better identifying risky customers; (ii) it is shown that GAM increases the interpretability of the churn model by visualizing the non-linear relationships with customer churn identifying a quasi-exponential, a U, an inverted U or a complex trend and (iii) marketing managers are able to significantly increase business value by applying GAM in this churn prediction context.