**PREVENTING CUSTOMERS FROM RUNNING AWAY!
EXPLORING GENERALIZED ADDITIVE MODELS FOR CUSTOMER CHURN PREDICTION**

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ABSTRACT

Nowadays, companies invest in a well-considered Customer Relationship Management strategy. One of the cornerstones of CRM is customer churn prediction, where one tries to predict whether or not a customer will leave the company. This study focuses on how better to support marketing decision makers in identifying risky customers by using Generalized Additive Models (GAM). Compared with logistic regression, a GAM relaxes the linearity constraint that allows for complex non-linear fits to the data. The contributions to the literature are threefold: (i) it is shown that a GAM is able to improve marketing decision making by better identifying risky customers; (ii) it is shown that a 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 increase business value significantly by applying a GAM in this churn prediction context.

References Available on Request.