

Churn Prediction with Support Vector Machine

Abstract

Customer churn or customer attrition is one of the most important problems in many businesses especially in subscription-based businesses such as mobile phone service providers, insurance companies, and financial services companies. This is because there are not many new customers left. Usually, the new customers for one company used to be the former customers for another company. Moreover, the cost of acquisition is always significantly higher than the cost of retention. Thus, it is important to figure out which customers will leave the company in order to reduce customer churn, improve customer loyalty, and increase both revenues and profitability. The resolution for this problem is searching for the most powerful technique to predict customer churn. There are many binary classification algorithms such as Artificial Neural Network, Decision Tree, and Naïve Bayesian classifier. However, Support Vector Machine (SVM) is one of the most powerful classification algorithms. The research paper by Xia and Jin (*Model of customer churn prediction on support vector machine*) has confirmed that SVM outperformed other four classification techniques which are Artificial Neural Network, Decision Tree C4.5, Logistic Regression and Naïve Bayesian classifier.

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