

# An Analytical Implementation of CART Using RStudio for Churn Prediction



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**Abstract** Data mining is a technique for finding new and undiscovered patterns, which help in predicting the future trends. Nowadays, it is being applied in all the fields, may it be, the field of medicines or credit cards or banking and insurance or telecommunications. Decision tree is a simple and popular technique of data mining (commonly employed for predictive analysis) which can be used to forecast the future trends. There are several algorithms for decision tree generation like ID3, C4.5, CART which can be applied with the help of different software tools like WEKA, Rapid Miner, R. This paper focuses on applying data mining in the field of telecommunications, to predict the churning behavior of the customers.

**Keywords** Data mining • Customer churn • CART algorithm • R

## 1 Introduction

Customer churn in telecom sector is one of the major areas of concern because it always involves a lot of overhead to acquire the new customers than to retain the existing customers of any organization. This work is about application of data mining techniques for telecom customers to predict their churning trends. There are

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