Customer churn prediction using machine learning and customer lifetime value analysis at Eurotel

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Abstract
Every CFO should invest in getting to know the organisation's customers. After all, building long-term and valuable customer relationships is an important driver of value creation. This case study explores how machine learning and predictive analytics can be used to develop a deeper understanding of customer behaviour and to enhance customer profitability. The case study consists of two parts: part A, customer churn prediction using machine learning, and part B, customer lifetime value analysis. In part A, the focus is on using machine learning to predict customer churn at Eurotel, a Belgian telecommunications start-up. The participants will learn how to pre-process raw customer data and will use different modelling techniques to predict customer churn. Furthermore, they will learn how to select the right model based on business relevance and performance. In part B, the participants will use the insights derived in the first part to analyse the customer lifetime value of the different Eurotel customers. This will serve as input for a marketing analysis. The goal is to determine which customer and product segments of Eurotel are most valuable and to strategically select the right marketing campaigns to target those segments. The participants will learn how to implement a customer lifetime value analysis and how the resulting information can be used to design an effective marketing campaign. The participants will also learn how they can implement the analysis in python.

Keyword
Customer behaviour, Customer Relationships

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