

**PREDICTING THE CUSTOMER LIFETIME IN THE PORTUGUESE FIXED
TELECOMMUNICATIONS INDUSTRY
– AN APPLICATION OF SURVIVAL ANALYSIS MODELLING**

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The considerable increase of business competition in the Portuguese fixed telecommunications industry for the last decades has given rise to a phenomenon of customer defection, which has serious consequences for the business financial performance and, therefore, for the economy. As such, researchers have recognised the importance of an in-depth study of customer defection in different industries and geographic locations. This study aims to understand and predict customer lifetime in a contractual setting in order to improve the practice of customer portfolio management. A duration model is developed to understand and predict the residential customer churn and the customer lifetime in the fixed telecommunications industry in Portugal. This paper also investigates the multiple causes of defection by developing a competing risk model. The models are developed by using large-scale data from an internal database of a Portuguese company which presents bundled offers of ADSL, fixed line telephone, pay-TV and home-video. The model is estimated with a large number of covariates, which includes customer's basic information, demographics, churn flag, customer historical information about usage, billing, subscription, credit, and other. The results of this study are very useful to the computation of the customer lifetime value.

Keywords

Duration models, survival analysis, customer defection, customer retention, customer management