

**Abstract:** The aim of the present work is to develop a tool for identification of Motor Third Party Liability insurance contracts which are at risk of cancellation. Methods for explorative data analysis, building a logistic regression model, comparing models and their validation and calibration are presented. Several models are developed on the real dataset using mentioned methods and then the final one is chosen. Behavior of the final model is verified by the validation on the out-of-time sample. Last step is calibration of the model to the expected value of the future portfolio cancellation rate.