Abstract

Recently, economic depression, which scoured all over the world, affects business organizations and banking sectors. Such economic pose causes a severe attrition for banks and customer retention becomes impossible. Accordingly, marketing managers are in need to increase marketing campaigns, whereas organizations evade both expenses and business expansion. In order to solve such riddle, data mining techniques is used as an uttermost factor in data analysis, data summarizations, hidden pattern discovery, and data interpretation. In this paper, rough set theory and decision tree mining techniques have been implemented, using a real marketing data obtained from Portuguese marketing campaign related to bank deposit subscription [Moro et al. , 2011]. The paper aims to improve the efficiency of the marketing campaigns and helping the decision makers by reducing the number of features, that describes the dataset and spotting on the most significant ones, and predict the deposit customer retention criteria based on potential predictive rules.

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**Index Terms**

Computer Science  
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**Keywords**

Data mining  
Rough Set Theory  
Decision Tree  
Marketing Dataset.