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.

References

- Turban, E., Sharda, R. and Delen, D., "Decision Support and Business
Deposit subscribe Prediction using Data Mining Techniques based Real Marketing Dataset

- Sérgio Moro and Raul M. S., pulocortezlaureano; Using Data Mining for Bank Direct Marketing:: An application of the CRISP-DM methodology; In P. Novaiset al. (Eds.), Proceedings of the European Simulation and Modelling Conference - ESM'2011, pp. 117-121, Guimarães, Portugal, October, 2011.
- J. Han and M. Kamber; Data Mining: Concepts and Techniques; Morgan Kaufmann, Text book, 2000.
- Jiawei Han and MichelineKamber, Data Mining: Concepts and Techniques, text book, 2000.
- Serhat Ö., A. Yilimza; Classification and prediction in adata mining application, Journal of Marmara for Pure and Applied Sciences, 18 159-174, Marmara University, Printed in Turkey, 2002.
- BinhThanh Luong, Salvatore Ruggieri, Franco Turini, k-NN as an Implementation of Situation Testing for Discrimination Discovery and Prevention, KDD’11, San Diego, California, USA, 2011.
- Shailendra K. Shrivastava, ManishaTantuway; A Decision Tree Algorithm based on Rough Set Theory after Dimensionality Reduction; International Journal of Computer Applications (0975 – 8887), Volume 17– No. 7, March 2011.
- http://hdl.handle.net/1822/14838
- http://www.cs.waikato.ac.nz/ml/weka/

**Index Terms**

Computer Science Information Science

**Keywords**

Data mining Rough Set Theory Decision Tree Marketing Dataset.