

Customer Behavior on RFMT Model Using Neural Networks

Abstract—Customer data is critical to marketing success. The goal of this study is to predict customer behavior using a supervised learning neural network. Feed-forward back propagation network with tan-sigmoid transfer functions is used as a classifier to predict whether a customer will buy in this month or not. Scaled conjugate gradient (SCG) algorithm is used with proposed neural network. This algorithm combines the model-trust region approach with the conjugate gradient approach. The results of applying the proposed artificial neural networks methodology to predict based upon recency, frequency, monetary, and time (RFMT) model show abilities of the network to learn the patterns corresponding to RFMT of the customer. The data set is obtained from UCI machine learning repository. The percent correctly classified in the simulation sample by the proposed neural network is 89 percent.