

Abstract

Bank is a financial institute. There is one that support the core business of bank which called a customer. So, the prediction of customer bank is really needed. Because from the prediction, the institution can plan and increase the service which can increase the saving money from the customer.

Prediction growth of customer bank used recurrent neural network with backpropagation through time algorithm. By the architecture of recurrent, the network can be trained and the hidden can be decided layer can be decided by trial and error which can give a good response.

The training uses two kind of input data, the amount of the customer and the percentage of amount the customer. The training can give the great architecture. The architecture for prediction with amount of the customer is a 4-10-1. And for prediction with percentage of amount the customer is 5-5-1. By the testing, the best accuracy from the prediction with amount of the customer is 99.64% and from the prediction with percentage of amount the customer is 99.89%.

Keyword : prediction, customer, *Recurrent Neural Network*, *Backpropagation Through Time*, *hidden layer*.