

An Early Warning Method for Agricultural Products Price Spike Based on Artificial Neural Networks Prediction

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Abstract

In general, the agricultural producing sector is affected by the diversity in supply, mostly from small companies, in addition to the rigidity of the demand, the territorial dispersion, the seasonality or the generation of employment related to the rural environment. These characteristics differentiate the agricultural sector from other economic sectors. On the other hand, the volatility of prices payed by producers, the high cost of raw materials, and the instability of both domestic and international markets are factors which have eroded the competitiveness and profitability of the agricultural sector. Because of the advance in technology, applications have been developed based on Artificial Neural Networks (ANN) which have helped the development of sales forecast on consumer products, improving the accuracy of traditional forecasting systems. This research uses the RNA to develop an early warning system for facing the increase in agricultural products, considering macro and micro economic variables and factors related to the seasons of the year.

Keywords

Predictive model; Multilayer perceptron; Multiple input multiple output; Forecast; Support vector machines; Cyclic variation