ABSTRACT

THE APPLICATION OF ARTIFICIAL NEURAL NETWORK WITH BACKPROPAGATION METHOD FOR FORECASTING SUGAR PRODUCTION (STUDY CASE : PT PERKEBUNAN NUSANTARA IX PERSERO / PG PANGKA)

by

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PT Perkebunan Nusantara IX (Persero) is one of Indonesian Government owned Company (BUMN) that runs the business in Primary product, especially in sugar production. Sugar is one of the primary products needed in Indonesia, even all over the world. As the time of rapid growth of the Industry, the competition to win the market of sugar is tighter. Many attempt and action is done by the company, for example knowing the production level forecasting in order to increase production result in the exact amount and push the loss. Based on many factors exists, a research is conducted to forecast the production amount of sugar.

This research uses artificial neural network method and compares the result to Multiple Regression method for forecasting the amount of sugar production. The data used in this research is secondary data from PTPN IX, which is the Sales Data of sugar in the period of 1980 until 2009. Based on the research, selection of the model, we get the best model used to forecast the production amount of sugar is artificial neural network method.

Keywords : *JST, sugar, forecasting the amount of sugar production, Multiple Regression*