ABSTRACT

Procurement process is an activity carried out by a company to obtain goods and services. Procurement process has now become a strategic activity for the company because in some cases it become one of the factors of the company in obtaining savings, so determining procurement strategy is highly considered by the company.

One of the things that determine in making of a procurement strategy is a good planning that based on data from procurement activities that have been carried out previously to estimate the procurement activities that will occur in the future.

The purpose of this study is to find out whether based on procurement data of PT Kimia Farma can be used to predict next procurement activity. This research was carried out using Markov Chain model where first, the dataset is being preprocessed. To help improve the results of prediction accuracy, Laplace Smoothing is used on Markov Chain models that have been formed.

The results showed that the prediction using Markov Chain gave a little accuracy despite using the Laplace Smoothing approach.

Keyword: Procurement, Markov Chain, Laplace Smoothing.