ABSTRAK

Peramalan penjualan memegang peranan penting dalam sebuah perusahaan. Banyak metode yang dikembangkan dalam melakukan peramalan, mulai dari yang paling sederhana seperti metode tangan bebas sampai metode yang kompleks seperti ARIMA dan jaringan syaraf tiruan. Metode fuzzy time series menawarkan suatu pendekatan baru dalam proses peramalan dengan menggunakan himpunan fuzzy sebagai dasarnya. Metode fuzzy time series memiliki keunggulan dalam kemudahan dan kemampuannya melakukan peramalan yang bersifat linguistik. Salah satu faktor yang mempengaruhi tingkat akurasi pada metode fuzzy time series adalah jumlah interval yang digunakan. Metode Frequency Density Based Partitioning dan average based models digunakan untuk mengoptimalisasi jumlah interval yang digunakan. Berdasarkan hasil yang telah diperoleh, penggabungan kedua metode tersebut terbukti mampu meningkatkan akurasi pada peramalan penjualan dan memiliki tingkat akurasi yang tinggi.

Kata kunci: forecasting, fuzzy time series, Frequency Density Based Partitioning, average based models

ABSTRACT

Sales forecasting plays an important role in a company. Many methods are developed in forecasting, ranging from the simplest such as the free hand method to complex methods such as ARIMA and artificial neural networks. Fuzzy time series method offers a new approach in forecasting process by using fuzzy set as its basis. Fuzzy time series method has advantages in its ease and ability to perform linguistic forecasting. One of the factors that influence the level of accuracy in the fuzzy time series method is the number of intervals used. Frequency Density Based Method Partitioning and average based models are used to optimize the number of intervals used. Based on the results that have been obtained, the combination of the two methods proved to be able to improve accuracy in sales forecasting and have a high degree of accuracy.

Keywords: forecasting, fuzzy time series, Frequency Density Based Partitioning, average based models