

ABSTRAK

RSUD dr. Fauziah Bireuen merupakan rumah sakit rujukan utama di Kabupaten Bireuen yang memiliki peran penting dalam pelayanan kesehatan masyarakat. Fluktuasi jumlah pasien per poliklinik menjadi tantangan dalam pengelolaan sumber daya seperti tenaga medis, obat-obatan, dan fasilitas pendukung lainnya. Penelitian ini bertujuan membandingkan akurasi metode *Fuzzy Time Series Chen* dan *Triple Exponential Smoothing* dalam memprediksi jumlah pasien per poliklinik. Hasil penelitian menunjukkan bahwa metode *Triple Exponential Smoothing* memiliki tingkat akurasi lebih tinggi dengan nilai MAPE sebesar 9,103% (akurasi 90,897%), dibandingkan metode *Fuzzy Time Series Chen* dengan MAPE sebesar 15,629% (akurasi 84,371%). Prediksi menggunakan *Fuzzy Time Series Chen* menghasilkan nilai tetap sebesar 246 pasien untuk periode Januari 2025 hingga Desember 2026. Sementara itu, prediksi *Triple Exponential Smoothing* periode Januari 2025 sebesar 259.361, Februari 2025 sebesar 283.983, Maret 2025 sebesar 311.936, April 2025 sebesar 343.220, Mei 2025 sebesar 377.835, dan Juni 2025 sebesar 415.780. Berdasarkan hasil tersebut, *Triple Exponential Smoothing* lebih direkomendasikan karena memberikan hasil yang lebih akurat dan mendukung efisiensi operasional rumah sakit.

Kata Kunci: Perbandingan, Prediksi Jumlah Pasien, *Fuzzy Time Series Chen*, *Triple Exponential Smoothing*, MAPE

ABSTRACT

RSUD dr. Fauziah Bireuen is the main referral hospital in Bireuen Regency which has an important role in public health services. Fluctuations in the number of patients per polyclinic are a challenge in managing resources such as medical personnel, medicines, and other supporting facilities. This study aims to compare the accuracy of the Fuzzy Time Series Chen and Triple Exponential Smoothing methods in predicting the number of patients per polyclinic. The results showed that the Triple Exponential Smoothing method has a higher accuracy rate with a MAPE value of 9.103% (90.897% accuracy), compared to the Fuzzy Time Series Chen method with a MAPE of 15.629% (84.371% accuracy). Prediction using Fuzzy Time Series Chen produces a fixed value of 246 patients for the period January 2025 to December 2026. Meanwhile, Triple Exponential Smoothing predictions for the period January 2025 amounted to 259,361, February 2025 amounted to 283,983, March 2025 amounted to 311,936, April 2025 amounted to 343,220, May 2025 amounted to 377. 835, and June 2025 by 415,780. Based on these results, Triple Exponential Smoothing is more recommended because it provides more accurate results and supports hospital operational efficiency.

Keywords: *Comparison, Number of Patient Prediction, Chen's Fuzzy Time Series, Triple Exponential Smoothing, MAPE*