

ABSTRACT

PT. Tirta Investama Bandung is a company that is responsible for distributing products such as AQUA, MIZONE, EVIAN and VIT. This company is a company in the field of bottled mineral water distributors (AMDK) which has a diverse variety of products and will be distributed to several retail networks in the region of Bandung. In this company, there is one type of product provided by PT. Tirta Investama, which has a large gap or a significant difference between estimated and realized products, is aqua beverage product. Aqua products have three distributor directions namely the AFH segment, the HOD segment, and the modern MDC segment. Of the three segments, there is one segment that has a significant gap or gap, namely the AFH segment. Currently, companies determine the number of product requests only by looking at past demand data or have not used the method with a mathematical model, so this results in the number of goods in the company not being optimal. Therefore, the right forecasting method is needed to overcome the problems faced by the company. The methods used in this study are Linear Regression, Constant, Single Moving Average, Double Moving Average, Weighted Moving Average, Single Exponential Smoothing, and Double Exponential Smoothing.

Through the results of calculations performed, it was found that the linear regression method is the best method for the first four sizes of aqua products, then followed by the concept of the one product size aqua, then the single exponential smoothing method, and the double moving average. The results of the tracking signal are in the range of ± 6 , then the proposal can be accepted and the method chosen is the best method and is in accordance with the demand data patterns for each aqua product size. So that the method can be applied to the company PT. Tirta Investama to support decision making.

Keywords: Forecasting, Linear Regression, Constant, Single Moving Average, Double Moving Average, Weighted Moving Average, Single Exponential Smoothing, Double Exponential Smoothing, Mean Absolute Error (MAD).